



CITY OF MANCHESTER.

REPORT

ON THE

Health of the City of Manchester,

1922,

BY

R. VEITCH CLARK, M.A., M.B., B.Sc.

MANCHESTER:

HENRY BLACKLOCK & CO. LIMITED, ALBERT SQUARE

1923.



CITY OF MANCHESTER.

REPORT

ON THE

Health of the City of Manchester,

1922,

BY

R. VEITCH CLARK, M.A., M.B., B.Sc.

MANCHESTER:

HENRY BLACKLOCK & CO. LIMITED, ALBERT SQUARE

1923.

PUBLIC HEALTH OFFICE,

MANCHESTER,

DECEMBER, 1923.

MY LORD MAYOR, ALDERMEN,

AND MEMBERS OF THE COUNCIL.

I have the honour to submit the report on the health of the City of Manchester for the year 1922. The report has been prepared in accordance with the memorandum of the Ministry of Health.

I have the honour to be,

My Lord Mayor,

Your obedient Servant,

ROBERT VEITCH CLARK.

STATISTICAL.

The following are general statistics for the year 1922 :—

Area of the City in acres	21,690
Population at the Census, 1921.....	730,307
„ „ „ „ Adjusted by Registrar General for Holiday Movement.....	744,000
Estimated population at the { Males 352,313 } middle of 1922..... { Females 394,673 }	746,986
No. of persons per acre.....	34
Persons married per 1,000 of population in the Manchester Union..	16.65
Births in the City of Manchester { Males..... 8,038 } { Females 7,817 }	15,855
Annual birth-rate per 1,000 of population	21.23
Deaths .. { Males..... 5,454 } { Females 5,196 }	10,650
Recorded annual death-rate per { Males..... 15.48 } 1,000 of population..... { Females 13.17 } persons ...	14.26
Deaths under 1 year of age per 1,000 births	96.18
Excess of registered births over deaths.....	5,205
Percentage mortality occurring in public institutions	36.08
No. of undivided private houses at the Census in June, 1921.....	143,725
„ „ „ „ Tenements, Blocks of Flats, Shops, etc., at the Census in June, 1921	157,704
No. of persons per undivided private house	4.56
„ „ all dwellings	4.63
Corresponding figures, 1911, ordinary dwelling-houses	4.71
„ „ „ all dwellings	1.86

TABLE 1.

Annual Death-rates—Male and Female.

Year	Male	Female
1912	17·68	14·79
1913	17·31	14·35
1914	18·36	15·28
1915	17·62	15·09
1916	15·53	13·68
1917	14·57	12·29
1918	16·34	15·33
1919	14·83	13·13
1920	14·33	11·75
1921	15·32	11·99
Average 10 years ..	16·19	13·77
1922	15·47	13·18

Proportion of Deaths occurring in the Home, and in Public Institutions.

The figures are as follows :—

TABLE 2.

Percentage of all deaths occurring in public institutions since 1914 :—

Year	1914	1915	1916	1917	1918	1919	1920	1921	1922
Percentage ..	32·3	31·8	33·2	34·0	30·6	30·6	33·0	36·4	36·

	Barometer	Dry Bulb	Wet Bulb	Humidity	Maximum Temperature	Minimum Temperature	Mean Temperature in Shade	Sun Maximum	Grass Minimum	One Foot	Four Feet	Total Rainfall (inches)	Total No. of Wet Days	Total Hours of Sunshine	Average Mean Daily Temperature 1881-1915 (extracted from book of normals)	Average Rainfall 1892-1921	Average Hours of Sunshine 1892-1921	Fog Noted
January	29.791	39.5	38.0	87	43.0	35.0	39.0	51.1	33.4	37.8	43.9	3.12	20	13.1	39.1	2.99	11.35	6th, 12th
February	29.813	40.0	38.3	86	46.0	36.2	41.1	58.5	34.1	37.7	41.4	4.05	18	35.7	40.1	2.43	32.44	
March	29.891	39.9	37.8	83	45.6	35.8	40.7	67.1	34.2	39.8	43.0	2.07	14	81.0	42.3	2.64	77.79	
April	29.776	41.5	38.6	78	48.6	36.5	42.6	73.9	34.3	40.2	42.6	2.51	20	80.4	46.8	2.06	125.51	
May	30.083	54.7	50.0	73	63.9	47.6	55.8	92.7	44.5	50.7	47.1	1.61	13	162.2	52.6	2.46	154.04	
June	29.992	57.3	52.1	71	65.1	50.5	57.8	94.1	47.8	59.2	56.0	2.32	14	179.2	58.4	2.42	160.71	
July	29.863	56.4	52.7	78	62.7	51.1	56.9	95.5	48.4	57.4	56.9	4.50	23	106.2	60.8	3.00	150.75	
August	29.942	55.9	52.8	80	62.9	51.8	57.4	93.0	46.6	57.6	57.6	4.39	15	103.4	59.9	3.65	124.08	
September	29.975	53.4	50.8	83	60.4	49.8	55.1	84.7	46.8	54.7	56.5	3.95	16	68.4	56.4	2.60	105.70	
October	30.134	47.7	44.9	81	54.0	43.7	48.9	77.0	41.0	47.8	53.2	0.41	9	79.0	49.8	3.39	57.83	
November	30.097	44.3	42.4	85	48.1	40.0	44.1	58.0	39.5	42.4	47.2	2.68	14	16.9	43.6	2.73	18.85	9th, 15th, 20th
December	29.772	43.0	41.5	88	46.2	39.8	43.0	51.4	40.6	41.6	45.8	5.60	22	8.5	40.4	3.73	6.79	9th, 14th
YEAR	29.928	47.8	45.0	81	53.9	43.2	48.5	74.8	40.9	47.2	49.3	37.21	198	934.0	49.2	34.10	1025.84	

POPULATIONS, DEATHS, AND DEATH-RATES IN AGE GROUPS FOR THE YEAR 1922, TOGETHER WITH THE DEATH-RATES FOR 1921 AND 1911.

2B

	Populations, 1922			Deaths, 1922			Death-rates, 1922			Death-rates, 1921			Death-rates, 1911		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All Ages	746,986	352,649	394,337	10,650	5,454	5,196	14.26	15.47	13.18	13.57	15.32	11.99	17.12	18.73	15.64
0-4	64,325	32,386	31,939	2,518	1,412	1,106	39.14	43.60	34.63	37.99	43.26	32.65	56.32	61.61	51.01
5-	68,476	33,940	34,536	205	112	93	2.99	3.30	2.69	3.28	3.64	2.94	3.90	3.67	4.12
10-	71,853	35,868	35,985	134	60	74	1.86	1.67	2.06	2.07	1.88	2.26	2.62	2.57	2.66
15-	69,888	33,772	36,116	202	84	118	2.89	2.49	3.27	3.81	3.51	4.09	3.68	4.12	3.27
20-	65,058	29,361	35,697	256	138	118	3.93	4.70	3.31	3.92	3.69	4.11	4.20	4.65	3.81
25-	120,223	53,907	66,316	557	259	298	4.63	4.80	4.49	4.66	5.31	4.13	5.50	6.51	4.60
35-	111,629	51,432	60,197	885	513	372	7.93	9.97	6.18	7.77	9.51	6.29	10.03	11.64	8.51
45-	89,123	43,296	45,827	1,248	702	546	14.00	16.21	11.91	13.45	17.00	10.10	18.55	20.84	16.44
55-	52,677	24,930	27,747	1,569	866	703	29.79	34.74	25.34	28.46	33.18	24.21	36.85	43.77	30.77
65-	26,076	11,141	14,935	1,791	858	933	68.68	77.01	62.47	60.46	73.46	50.77	75.03	82.72	69.50
75-	6,989	2,442	4,547	1,099	398	701	157.25	162.98	154.17	131.79	154.26	119.73	139.44	162.53	126.81
85+	669	174	495	186	52	134	278.03	298.85	270.71	256.76	300.58	241.38	233.18	248.06	227.13



TABLE 3.

Percentage dying in public institutions in the three main divisions of the City :—

Year	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
Manchester Township ..	41·7	42·0	40·7	44·8	46·6	39·8	41·5	44·6	44·8	46·5
North Manchester	23·6	25·2	24·0	26·2	27·1	24·2	25·2	25·9	31·9	29·2
South Manchester	29·3	32·0	31·4	31·5	32·1	29·3	29·7	32·1	35·5	35·3

The extent to which Poor Law and Voluntary Hospitals are used, is, to some extent, represented in the following table :—

TABLE 4.

1922.—DEATH-RATES* IN THE HOMES OF THE PEOPLE, IN WORKHOUSES, AND IN HOSPITALS FOR THE VARIOUS DIVISIONS OF THE CITY.

STATISTICAL DIVISIONS	Estimated Populations to middle of 1922	Death-rate per 1000 of persons dying in their own homes	Death-rate per 1000 of persons dying in Workhouses	Death-rate per 1000 of persons dying in Hospitals	Total death-rate per 1000	Mean death-rate 1912-1921
City of Manchester. ...	746,986	9·12	3·02	2·12	14·26	14·91
I. Manchester Township..	109,579	10·47	6·24	2·88	19·59	22·70
II. North Manchester	205,827	8·99	1·58	2·12	12·69	12·77
III. South Manchester	431,580	8·82	2·89	1·94	13·65	14·04

* In this table, *every death* occurring in a Public Institution has been referred to the District from which the patient originally came.

The chief causes of death during the year are shown below, compared with the corresponding figures for 1917, 1918, 1919, 1920, and 1921 :—

TABLE 5.

	1917	1918	1919	1920	1921	1922
Tuberculosis of the Lungs	1196	1103	951	868	967	947
Tuberculosis of Organs other than the Lungs	359	287	237	220	252	242
Diseases of the Heart	947	920	1050	1076	1052	1087
Cerebral Hæmorrhage, Apoplexy, Hemiplegia.....	604	503	483	462	422	439
Pneumonia	929	1421	977	919	924	1024
Bronchitis	1097	1053	1277	1193	1067	1277
Digestive Organs	395	360	397	373	382	310
Atrophy, Debility (chiefly in infants)	155	153	144	245	140	114
Old Age	439	413	464	408	405	467
Premature Birth.....	262	280	324	378	333	310
Nephritis and Bright's Disease	307	275	275	283	260	289
Convulsions.....	74	61	56	61	82	53
Inflammation of the Brain	76	77	65	65	59	51
Diarrhœa and Dysentery.....	279	147	172	250	387	191
Measles	277	166	104	210	5	354
Scarlet Fever	15	21	26	46	59	62
Whooping Cough	49	330	40	84	169	99
Diphtheria	63	58	41	67	90	82
Influenza.....	98	2096	1127	229	207	393
Malignant Disease.....	770	806	875	936	939	955

The following figures show the gains and losses in the death-rates in 1922 from a number of causes, as compared with the death-rates from the same causes over the average of the previous ten years:—

TABLE 6.

Gains and Losses in 1922 per 1,000 persons living, as compared with the average for the 10 years 1912-1921—(See Table K).

Gains.

Whooping Cough	0·11
Influenza	0·03
Diarrhœal Diseases	0·20
Enteric Fever	0·02
Phthisis	0·20
Tubercular Diseases (other)	0·09
Alcoholism.. .. .	0·02
Nervous Diseases	0·14
Premature Birth	0·03
Pneumonia	0·09
Digestive System	0·16
Total	1·09

Losses.

Measles	0·14
Puerperal Fever	0·01
Pyæmia, Septicæmia	0·03
Cancer	0·21
Diseases of the Heart and Blood Vessels	0·13
Rheumatic Fever	0·01
Bronchitis	0·16
Respiratory Diseases (other).. .. .	0·01
Urinary Organs (Diseases of)	0·01
Old Age	0·04
Total	0·75

Balance of Gain from Above Causes 0·34

„ „ All Causes 0·65

INFANTILE MORTALITY.

The figures relating to infantile mortality, divided into those concerning the first and second trimesters and the last six months of the first year, are shown in table 7.

TABLE 7.—INFANTILE MORTALITY.

Deaths per 1,000 births at the ages 0-2 months, 3-5 months, and 6-11 months, in successive years.

YEARS	Months of Age			
	0-2	3-5	6-11	Under 1 year
1891-95 (mean)	82.79	40.99	62.97	186.75
1896-1900 (mean)	83.44	42.43	66.28	192.16
1901-1905 (mean)	81.02	37.52	54.24	172.78
1906-1910 (mean)	73.89	29.12	44.27	147.28
1911-1915 (mean)	69.23	24.38	39.26	132.88
1916-1920 (mean)	58.46	17.72	28.65	104.82
1913	68.76	24.42	35.52	128.70
1914	68.19	23.16	37.28	128.63
1915	64.38	22.83	41.43	128.64
1916	61.55	18.50	31.22	111.24
1917	60.20	18.77	32.32	111.29
1918	52.59	20.37	33.77	106.73
1919	58.88	13.86	25.05	97.76
1920	59.06	17.09	20.90	97.08
1921	54.54	18.81	23.64	96.98
1922	53.61	15.07	27.50	96.18

Table 8 allows a comparison with former years in respect of the infantile mortality rates from different causes for the whole of the first year of life.

TABLE 8.

CITY OF MANCHESTER.

CAUSES OF DEATH	DEATHS UNDER ONE YEAR PER 1,000 BIRTHS					
	1917	1918	1919	1920	1921	1922
All causes	111.29	106.73	97.76	97.08	96.98	96.18
Smallpox	..	..	..	..	..	..
Chickenpox	..	..	..	..	0.11	0.19
Measles	5.22	3.10	1.87	2.77	0.11	5.68
Scarlet Fever	0.08	..	..	0.16	0.11	0.19
Whooping Cough	1.32	6.89	0.93	1.99	5.23	2.14
Diphtheria and Membranous Croup	0.47	0.31	0.29	0.10	0.17	0.76
Erysipelas	0.08	0.08	0.07	0.10	0.11	..
Tuberculous Meningitis ..	1.95	0.77	0.93	0.42	0.62	1.26
Abdominal Tuberculosis ..	0.86	0.93	0.43	0.37	0.17	0.44
Other Tuberculous Diseases..	1.33	0.31	0.50	0.57	0.57	0.38
Meningitis (<i>not Tuberculous</i>)..	1.17	1.39	1.01	1.31	0.68	1.07
Convulsions	4.44	3.56	3.59	2.82	3.81	2.84
Laryngitis	..	0.08	0.07	0.10	0.11	0.13
Bronchitis	9.20	9.91	8.40	11.08	9.15	9.65
Pneumonia (all forms) ..	10.90	16.11	11.77	11.81	10.57	15.26
Diarrhœa and Enteritis.. ..	15.51	7.43	9.62	11.13	17.95	9.78
Gastritis	1.64	1.63	1.22	1.25	1.14	0.57
Syphilis	3.90	2.17	3.02	1.99	1.82	1.96
Rickets	0.55	0.08	0.29	0.37	0.23	0.10
Injury at birth	2.18	1.16	2.37	1.36	1.48	1.07
Atelectasis	1.25	1.32	1.94	2.61	3.70	3.34
Congenital Malformation ..	5.46	3.41	4.45	4.28	4.04	4.42
Premature Birth	20.41	21.68	23.26	19.70	18.86	19.55
Atrophy, Debility, and Marasmus	11.61	11.23	9.91	12.17	7.61	6.94
Overlying, found dead in bed, and suffocation	4.4	2.0	2.7	1.98	1.64	1.70
Other causes	8.02	11.46	10.05	7.21	7.44	7.13

Herewith are given the tables of poor law relief, already mentioned :—

AMOUNT OF POOR LAW RELIEF.

This is shown in the table on page 10, compiled from a monthly statement furnished to the Hospitals Sub-Committee. Further particulars are given in the Statement below, obtained from the Clerk to the Manchester Guardians.

MANCHESTER UNION.

Return relating to Sick Persons and Persons Suffering from Mental Infirmary Maintained by, or Chargeable to, the Guardians of the Poor of the Manchester Union on the 1st January, 1923.

Institution	Class of Case Maintained	Sick	Suffering from Mental Infirmary
1. Poor Law Establishments.			
<i>(a) Belonging to Manchester Union :—</i>			
Crumpsall Infirmary (2,250)	General Hospital and Lunacy	1,019	536
Withington Hospital (1,561)	General Hospital ..	1,124	—
Rose Hill Ophthalmia School (80)	Ophthalmic children ..	51	—
Booth Hall Infirmary (440)	General Hospital for Children	406	—
Langho Colony (500) ..	Epileptic persons ..	—	479
<i>(b) Belonging to other Unions :—</i>			
Tarvin	Feeble-minded persons.	—	20
Lunedale	"	—	11
West Derby	Mentally deficient persons	—	3
Metropolitan Asylums Board (Whiteoak School)	Ophthalmic children ..	3	—
2. Non-Poor Law Establishments.			
<i>(a) County Asylums :—</i>			
Lancaster	Lunatics	—	368
Prestwich	"	—	858
Winwick	"	—	186
Whittingham	"	—	178
Rainhill	"	—	23
Cumberland and Westmoreland	"	—	1
Parkside	"	—	1
Surrey	"	—	2
<i>(b) Hospitals, Homes, and Schools :—</i>			
St. John Baptist's Ophthalmia School, Chigwell	Ophthalmic boys.. ..	6	—
Ormerod Home, St. Annes-on-Sea	Delicate and Phthisical children	16	—
Pen-y-coed, Abergele.. ..	Phthisical children ..	10	—
Carried forward ..		2,585	2,494

Institution	Class of Case Maintained	Sick	Suffering from Mental Infirmary
	Brought forward ..	2,585	2,494
2. Non-Poor Law Establishments (continued)—			
(b) Hospitals, Homes, and Schools— (continued)			
Banksea Convalescent Home, Dovercourt	Convalescent	5	—
St. Anne's Ophthalmia School, London	Ophthalmic persons ..	4	—
Monsall Fever Hospital, Newton Heath	Infectious	1	—
Min-y-don Home, Conway	Phthical children ..	112	—
Royal Alexandra Hospital, Rhyl	Convalescent	2	—
St. Agnes Training School, Leyton	Feeble-minded women .	—	1
Thurlby House (now Hill-side House School), Buntingford	Feeble-minded children	—	2
Sandlebridge School, Alderley Edge	Mentally defective adults	—	9
All Souls' Special School, Hillingdon, Essex	Feeble-minded girls {	—	8
Cumnor Rise Home, Botley, Oxford		—	4
Stoke Park Colony, Bristol	Feeble-minded persons {	—	36
Whittington Hall, Chesterfield		—	8
Pontville Home, Ormskirk	Feeble-minded boys ..	—	3
Durran Hill House, Carlisle	Mentally defective women	—	8
St. Joseph's Home, Sudbury	Feeble-minded young women	—	2
Allerton Priory, Woolton, Lancs.	Feeble-minded children	—	2
Royal Albert Institution, Lancaster	Feeble-minded adults..	—	11
BrentryCertified,nearBristol	Feeble-minded adults..	—	1
	Total	2,709	2,589

N.B.—The figures shown in brackets against the Institutions under heading 1 (a) represent the accommodation for the class referred to.

THE NUMBER OF PERSONS WHO WERE IN RECEIPT OF RELIEF FROM THE MANCHESTER
BOARD OF GUARDIANS DURING THE LAST WEEK IN EACH MONTH OF THE TWO
YEARS 1921 AND 1922.

	1921			1922		
	Indoor	Out-Door	Sick Remaining	Indoor	Out-Door	Sick Remaining
January ..	6,347	5,502	2,165	7,084	25,164	2,324
February ..	6,357	5,922	2,137	7,190	26,654	2,484
March ..	6,367	6,473	2,155	7,108	26,456	2,438
April	6,420	9,750	2,216	7,015	40,597	2,422
May	6,493	13,552	2,238	7,019	41,213	2,474
June	6,470	17,576	2,225	6,902	40,723	2,344
July	6,402	18,735	2,210	6,812	24,557	2,248
August ..	6,500	18,506	2,119	6,797	24,119	2,255
September .	6,646	26,127	2,134	6,799	25,160	2,167
October ..	6,743	31,616	2,187	6,862	26,433	2,216
November..	6,744	27,091	2,157	6,923	23,795	2,238
December ..	6,871	22,280	2,196	7,085	20,741	2,312

TABLES.

TABLE A.—MANCHESTER, 1922.

CAUSES OF DEATH AT DIFFERENT LIFE PERIODS IN THE 52 WEEKS OF THE YEAR.
PERSONS.—(MALES AND FEMALES.)

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	
		0 to 1	1 to 5											
All Causes	10650	1525	993	205	134	202	256	557	885	1248	1569	1791	1095	
A.—GENERAL DISEASES.....	4216	852	564	118	65	130	165	306	397	538	524	418	127	
B.—LOCAL DISEASES	5485	529	385	63	59	62	82	224	445	642	982	1209	701	
C.—OTHER SPECIFIED DIS ..	...	...	...	...	...	...	...	...	...	...	...	...	...	
D.—ILL-DEFINED DISEASES...	592	112	4	...	1	...	...	1	...	6	20	132	24	
E.—VIOLENT DEATHS	357	32	40	24	9	10	9	26	43	62	43	32	20	
A.—General Diseases.														
Smallpox.. { Vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	
{ Not Vaccinated ..	...	...	...	...	...	...	...	...	...	...	...	...	...	
{ No Statement.....	...	...	...	...	...	...	...	...	...	...	...	...	...	
Cowpox	...	...	...	...	...	...	...	...	...	...	...	...	...	
Chickenpox	4	3	1	...	...	...	...	...	...	...	...	...	...	
Measles	354	90	247	17	...	...	...	...	...	...	...	...	...	
Epidemic Rose Rash	1	...	...	...	...	...	...	...	...	1	...	...	...	
Scarlet Fever.....	62	3	34	13	1	3	4	2	1	1	...	...	...	
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...	
Plague.....	...	...	...	...	...	...	...	...	...	...	...	...	...	
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	
Influenza	393	24	26	4	4	13	14	42	48	66	60	61	20	
Whooping Cough.....	99	34	63	2	...	...	...	...	...	...	...	...	...	
Mumps	1	...	...	...	...	...	...	...	...	...	...	1	...	
Diphtheria and Memb: Croup	82	12	40	22	6	2	...	...	...	...	...	...	...	
Poliomyelitis	2	...	1	1	...	...	...	...	...	...	...	...	...	
Cerebro-spinal Fever	3	...	2	1	...	...	...	...	...	...	...	...	...	
Simple Cont: Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	
Enteric Fever	5	...	...	...	...	...	...	2	2	...	1	...	...	
Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	
Epidemic Diarrhoea	19	12	6	...	...	...	1	...	...	...	...	...	...	
Diarrhoea	170	143	21	1	1	...	...	...	...	1	...	1	...	
Dysentery	2	...	...	1	...	...	...	...	...	1	...	...	...	
Malarial Fever.....	4	...	...	...	...	...	...	2	2	...	...	...	...	
Trench Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	
Actinomycosis	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hydrophobia	...	...	...	...	...	...	...	...	...	...	...	...	...	
Glanders.....	...	...	...	...	...	...	...	...	...	...	...	...	...	
Anthrax	...	...	...	...	...	...	...	...	...	...	...	...	...	
Tetanus	...	...	...	...	...	...	...	...	...	...	...	...	...	
Syphilis	41	31	1	...	...	1	...	1	1	5	1	...	...	
Gonorrhœa, Strict: Urethra....	9	...	...	...	...	...	...	...	1	1	5	2	...	
Puerperal.. { Septicæmia	22	...	...	...	...	...	...	11	10	1	...	...	...	
{ Pyæmia	...	...	...	...	...	...	...	...	...	...	...	...	...	
{ Phlegmasia Dol: ..	...	...	...	...	...	...	...	...	...	...	...	...	...	
{ Fever.....	8	...	...	...	...	...	1	4	3	...	...	...	...	
Infective Endocarditis	22	...	...	...	1	3	3	6	4	4	1	...	...	
Epidemic Pneumonia } Pneumonic Fever }	2	...	...	...	...	...	...	...	...	1	...	1	...	
Erysipelas	18	...	...	...	...	1	...	...	2	5	7	2	...	
Septicæmia (not puerp:).....	9	1	...	1	...	1	1	...	1	3	1	...	...	
Pyæmia (not puerp:).....	2	...	...	1	1	...	...	...	...	...	...	...	...	
Phlegmon	...	...	...	...	...	...	...	...	...	...	...	...	...	
Phagedæna	...	...	...	...	...	...	...	...	...	...	...	...	...	
Other Septic Diseases.....	1	...	...	...	...	...	...	...	...	...	...	1	...	
Tubercular Phthisis	880	5	15	6	12	70	109	181	185	174	87	33	...	
Phthisis	67	...	...	1	2	4	8	10	17	11	9	4	...	

TABLE A, 1922—continued.

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	
		0 to 1	1 to 5											
3. DISEASES OF HEART.														
Valvular Dis: Endocarditis	549	1	3	4	15	11	13	37	67	100	112	130	49	
Pericarditis	9	...	1	1	1	...	...	...	1	1	3	...	...	
Hypertrophy of Heart.....	1	...	...	...	...	...	...	...	...	...	...	1	...	
Angina Pectoris	32	...	...	...	...	...	...	...	...	6	15	7	4	
Dilatation of Heart	93	...	...	1	...	...	...	2	5	12	32	30	10	
Fatty Degen: of Heart	27	...	...	...	...	...	...	...	5	3	9	7	3	
Syncope, Heart Disease.....	376	1	...	5	2	1	4	9	22	39	80	119	79	
4. DIS: OF BLOOD VESSELS.														
Cerebral Hæmorrhage.....	351	3	...	...	...	1	...	3	7	36	101	119	73	
Apoplexy, Hemiplegia.....	88	...	...	...	...	...	...	...	4	11	19	32	20	
Aneurism	16	...	...	...	...	...	...	...	3	7	6	...	...	
Senile Gangrene	22	...	...	...	...	...	...	...	...	...	3	7	9	
Embolism, Thrombosis	56	...	...	...	...	...	2	6	2	2	12	20	10	
Phlebitis.....	2	...	...	...	...	...	...	1	...	1	...	...	...	
Varicose Veins	3	...	...	...	...	...	...	...	1	...	2	...	...	
Blood Vessels (Other Diseases)	202	...	...	...	...	...	...	...	1	15	45	72	62	
5. DIS: OF RESPIRATORY SYS:														
Laryngitis	3	2	1	...	...	...	...	...	...	...	...	...	...	
Membr: Laryng: (Not Diphth:)	...	...	...	...	...	...	...	...	...	...	...	...	...	
Croup.....	1	...	1	...	...	...	...	...	...	...	...	...	...	
Larynx (Other Dis:)	2	...	2	...	...	...	...	...	...	...	...	...	...	
Bronchitis	1,277	153	69	5	1	4	8	14	48	99	212	373	254	
Pneumonia { Lobar-Croupous.	369	22	21	11	5	12	11	38	77	72	52	38	8	
{ Broncho-Lobular.	588	212	214	11	1	3	3	30	25	31	37	17	...	
"Pneumonia".....	67	8	8	1	1	2	2	5	3	9	10	12	4	
Emphysema, Asthma	33	...	...	...	1	...	2	...	5	8	11	4	2	
Pleurisy	44	...	5	...	...	1	3	1	13	8	7	5	...	
Fibroid Disease of Lung.....	1	...	...	...	...	...	...	...	...	...	1	...	...	
Respiratory Dis: (Other)	32	2	1	...	...	...	...	5	4	2	5	6	3	
6. DIS: OF DIGESTIVE SYS:														
Tonsillitis, Quinsy	7	1	2	1	...	...	2	...	...	1	...	...	...	
Mouth, Pharynx	11	4	2	...	1	...	...	1	...	1	1	...	1	
Gastric Ulcer.....	49	...	...	...	...	1	...	8	14	13	8	4	1	
Gastric Catarrh.....	2	1	...	...	...	...	...	...	...	...	1	...	...	
Stomach (Other Dis:)	30	10	1	1	2	1	...	...	2	3	6	3	1	
Enteritis.....	7	...	...	...	...	...	1	2	...	...	2	2	...	
Gastro-Enteritis.....	4	...	2	...	...	...	...	...	...	...	1	...	1	
Appendicitis, Perityph:	44	...	3	7	7	4	2	4	2	9	5	1	...	
Hernia	32	...	...	...	1	...	1	2	3	7	8	8	2	
Intestinal Obstruct:.....	30	2	5	...	...	1	1	5	...	2	5	5	4	
Other Diseases of Intestines ...	18	6	2	...	...	...	1	1	2	2	2	2	...	
Peritonitis	14	1	1	3	...	1	...	1	4	2	...	1	...	
Cirrhosis of Liver.....	20	...	...	...	...	...	...	...	2	7	3	8	...	
Liver	21	4	1	1	...	...	...	...	1	1	6	4	3	
Biliary Calculi ..	11	...	...	...	...	...	...	1	1	...	4	1	3	
Digestive System (Other Dis:)	10	2	...	...	...	...	...	1	1	1	2	2	...	
7. DIS: OF LYMPHATIC AND DUCTLESS GLANDS.														
Spleen, Disease of.....	...	...	...	...	...	...	...	...	...	...	...	...	...	
Lymphat: Syst: (Other Dis:)	29	2	...	...	1	...	2	4	6	7	6	1	...	
Thyroid Body (Other Dis:)	6	...	...	...	...	...	...	...	...	3	2	1	...	
Addison's Dis: (Dis: of)	4	...	...	...	...	...	...	...	2	...	2	...	...	
8. DISEASES OF URINARY SYSTEM.														
Nephritis Ac: Uræmia	82	1	...	1	2	1	3	11	5	12	24	15	7	
Ch: Bright's Dis: Albumin: ...	207	...	1	...	2	1	1	6	23	37	56	50	27	
Calculus	8	...	1	...	...	...	...	2	1	...	2	2	...	
Bladder and Prostate Dis: ...	75	...	...	...	...	...	2	1	5	5	12	25	23	
Urinary Syst: (Other Dis:)	11	...	...	...	...	...	2	2	2	2	3	...	...	

TABLE B.—MANCHESTER, 1922.
CAUSES OF DEATHS AT DIFFERENT LIFE PERIODS—MALES.

Classes	CAUSES OF DEATH	All Ages	AGES AT DEATH—IN YEARS														
			UNDER 5 YEARS		5	10	15	20	25	35	45	55	65	75	85	95	
			0	1	10	10	10	10	10	10	10	10	10	10	10	10	10
			Total	1	5	10	15	20	25	35	45	55	65	75	85	95	
	All Causes	5454	894	518	112	60	84	138	259	513	702	866	858	398			
A	Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Measles	186	45	134	7	...	...	...	...	...	...	...	...	...	...	...	
	Scarlet Fever	35	3	18	9	...	1	3	1	...	...	...	...	...	...	...	
	Typhus Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Whooping Cough	29	14	15	...	...	...	...	...	...	...	...	...	...	...	...	
	Diphtheria, Memb: Croup	37	6	18	10	3	...	...	...	...	...	...	...	...	...	...	
	Ill-defined Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Enteric Fever	4	...	...	...	...	...	2	1	...	1	...	...	...	...	...	
	Influenza	197	20	13	1	3	8	11	20	26	30	29	25	11	...	...	
	Epidemic Diarrhœa	11	8	2	...	...	...	1	...	...	...	...	...	...	...	...	
	Diarrhœa, Dysentery, Simple Cholera.....	104	88	13	...	...	...	...	...	...	2	...	...	...	1	...	
	Venereal Affections.....	37	20	1	...	...	...	...	1	2	5	6	2	...	...	...	
	Erysipelas	11	...	...	...	...	...	...	...	2	2	5	2	...	...	...	
	Pyæmia, Septicæmia (others) ...	24	1	...	2	2	1	4	1	4	6	2	1	...	...	...	
B and C	Other Zymotics	2	1	...	...	...	...	...	...	1	...	...	...	...	...	...	
	Tuberc. Periton: Tabes Mes: ...	21	5	8	2	3	...	1	...	...	1	...	1	...	...	...	
	Tubercular Meningitis	68	15	34	9	5	3	...	...	1	...	...	1	...	...	...	
	Phthisis.....	556	3	8	4	1	24	51	102	133	135	69	24	2	...	...	
	Tuberculous Dis. (other)	38	1	6	2	4	5	4	2	3	6	2	3	...	...	...	
	Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Alcoholism	13	...	...	...	...	...	...	...	3	7	2	1	...	...	...	
	Rheumatic Fever.....	23	...	...	5	5	2	1	...	1	1	5	3	...	...	...	
	Cancer	469	...	...	1	1	...	...	5	36	101	169	128	24	...	...	
	Premature Birth.. ..	181	181	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Congenital Defects.....	48	37	5	3	2	...	1	...	...	...	...	...	...	...	...	
	Atelecyasis	35	35	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Epilepsy	19	1	2	...	1	...	2	2	4	3	1	3	...	...	...	
	Convulsions.....	31	26	5	...	...	...	...	...	...	...	...	...	...	...	...	
D	Nervous Syst: (other)	160	12	15	4	5	2	3	13	25	30	23	21	6	...	...	
	Cereb: Haem: Apoplexy, Hemip: ...	177	1	...	...	...	...	...	3	7	22	45	71	26	...	...	
	Heart and Blood Vessel Dis: ...	636	...	2	6	6	5	12	17	46	122	168	181	79	...	...	
	Pleurisy	23	...	2	...	...	1	1	1	7	4	6	1	...	...	...	
	Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bronchitis	612	84	36	3	...	2	3	8	38	53	112	168	94	...	...	
	Pneumonia	606	142	129	13	2	11	16	29	76	69	62	42	13	...	...	
	Respiratory Dis: (other)	36	1	3	...	1	...	2	3	5	9	5	4	...	...	...	
	Cirrhosis	14	...	...	...	...	...	...	...	2	4	2	6	...	...	...	
	Digestive Syst: (other)	138	17	16	7	2	5	6	13	19	17	21	12	...	...	...	
	Urinary Syst: (other).....	224	1	1	...	...	...	3	11	25	29	62	55	35	...	...	
	Generative Organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Other specified Diseases	171	39	8	4	7	5	5	10	16	17	29	27	...	...	...	
	E	Marasmus and Atrophy.....	69	67	2	...	...	...	...	...	...	...	...	...	...	...	...
Old Age		178	...	...	...	...	...	...	...	1	11	60	9	...	...	...	
Other Ill-defined Causes		6	1	...	...	1	...	...	...	4	...	...	...	...	...	...	
E	Violence	170	19	22	20	6	7	6	12	21	21	16	12	...	...	...	
	Homicide	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	
	Suicide	54	...	...	...	...	2	2	3	9	20	13	4	...	...	...	

TABLE C.—MANCHESTER, 1922.
CAUSES OF DEATHS AT DIFFERENT LIFE PERIODS—FEMALES.

Classes	CAUSES OF DEATH	All Ages Total	AGES AT DEATH—IN YEARS														85 and upwards
			UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85			
			0 to 1	1 to 5													
	All Causes	5196	631	475	93	74	118	118	298	372	546	703	933	701	134		
A	Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Measles.....	168	45	113	10	...	...	...	...	...	...	...	...	...	...	...	
	Scarlet Fever	27	...	16	4	1	2	1	1	1	...	...	...	...	...	...	
	Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Whooping Cough	70	20	48	2	...	...	...	...	...	...	...	...	...	...	...	
	Diphtheria, Memb: Croup	45	6	22	12	3	2	...	...	...	...	...	...	...	...	...	
	Ill-defined Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Enteric Fever	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	
	Influenza	196	4	13	3	1	5	3	22	22	36	31	36	18	2	...	
	Epidemic Diarrhoea	8	4	4	...	...	...	...	...	...	...	...	...	...	...	...	
	Diarrhoea, Dysentery, Simple Cholera.....	68	55	8	2	1	...	...	...	...	...	...	1	1	...	...	
	Venereal Affections.....	13	11	...	...	...	1	...	...	...	1	...	...	...	...	...	
	Erysipelas.....	7	...	...	...	...	1	...	...	...	3	2	...	...	...	1	
	Pyæmia, Septicæmia (others) ...	12	...	...	...	...	3	...	5	1	2	...	1	...	...	...	
	Puerperal Fever	30	...	...	...	...	...	1	15	13	1	...	...	...	...	...	
	Other Zymotics	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	
	B and C	Tubercular Periton: Tabes Mes.	22	2	10	5	2	2	...	...	...	1	...	...	...	...	...
		Tubercular Meningitis	50	5	22	10	5	3	1	2	2	...	...	...	...	...	...
		Phthisis.....	391	2	7	3	13	50	66	89	69	50	27	13	2	...	...
		Tuberculous Diseases (other) ...	43	...	5	3	4	5	6	4	2	4	4	5	1	...	...
Parasitic Diseases		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Alcoholism		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Rheumatic Fever		37	...	1	4	3	7	6	2	5	3	2	4	...	...	...	
Cancer		486	1	2	...	...	...	...	16	48	121	132	112	49	5	...	
Premature Birth		129	129	...	...	...	...	...	...	...	...	...	...	...	...	...	
Congenital defects		39	33	5	...	1	...	...	...	...	...	...	...	...	...	...	
Atelectasis		18	18	...	...	...	...	...	...	...	...	...	...	...	...	...	
Epilepsy		24	...	...	...	...	4	1	4	2	7	5	1	...	...	...	
Convulsions		22	19	3	...	...	...	...	...	...	...	...	...	...	...	...	
Nervous System (other).....		119	11	9	4	1	3	3	10	14	19	17	18	9	1	...	
Cerebral Hæmorrhage, Apoplexy, and Hemiplegia		262	2	...	...	...	1	...	...	4	25	75	80	67	8	...	
Heart and Blood Vessel Diseases		752	2	2	5	12	8	7	38	61	84	151	212	147	23	...	
Pleurisy.....		21	...	3	...	...	...	2	...	6	4	1	4	...	1	...	
Croup		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bronchitis		665	69	33	2	1	2	5	6	10	46	105	205	162	24	...	
Pneumonia		418	100	114	10	5	6	...	17	34	37	31	45	16	3	...	
Respiratory Diseases (other).....	36	3	2	...	...	...	...	2	4	1	12	6	2	4	...		
D	Cirrhus	6	...	...	...	...	...	...	...	3	1	2	...	...	...	...	
	Digestive System (other)	152	14	3	6	9	3	2	13	11	25	30	21	13	2	...	
	Urinary System (other).....	159	...	1	1	4	2	5	11	11	27	35	37	22	3	...	
	Generative Organs and Childbirth	57	...	...	...	...	1	5	17	22	8	1	2	1	...	...	
	Other specified Diseases	169	17	8	3	5	6	3	12	17	15	23	40	19	1	...	
	Marasmus and Atrophy.....	45	43	2	...	...	...	...	...	...	...	...	...	...	...	...	
	Old Age	289	...	...	...	...	...	...	...	...	9	70	155	55	...	...	
	Other Ill-defined Causes	5	1	...	...	...	...	...	1	...	1	...	2	...	...	...	
	E	Violence	106	13	17	3	3	1	1	6	6	12	12	14	17	1	...
		Homicide	6	...	1	1	...	...	...	2	...	2	...	...	...	...	...
Suicide		20	...	...	...	...	...	...	3	6	7	2	2	...	...	...	

TABLE D.

CITY OF MANCHESTER, 1922.—CAUSES OF DEATH IN INFANCY AND CHILDHOOD.

CAUSES OF DEATH	UNDER ONE YEAR			Total under One Year	ONE AND UNDER FIVE YEARS			
	Under 3 months	3-6 months	6-12 months		1-	2-	3-	4-
All Causes	850	239	436	1,525	570	268	99	56
Chicken Pox.....	...	...	3	3	1	...	...	...
Measles	1	6	83	90	159	65	13	10
Scarlatina	...	...	3	3	8	11	10	5
Whooping Cough	8	11	15	34	39	14	7	3
Diphtheria.....	...	2	10	12	15	12	7	6
Erysipelas	...	...	...	...	...	...	...	...
Diarrhoeal Diseases	78	46	31	155	24	3	...	...
Gastritis.....	6	1	2	9	1	...	...	...
Syphilis	24	7	...	31	1	...	...	...
Tabes Mesenterica and Tuberc. Peritonitis	1	1	5	7	5	5	6	2
Tubercular Meningitis	...	7	13	20	29	19	6	2
Tuberculosis (other).....	...	...	6	6	15	6	4	1
Rickets	1	...	2	3	2	...	...	...
Premature Birth	302	6	2	310	...	...	...	...
Injury at Birth	17	...	...	17	...	...	...	...
Atelectasis	53	...	...	53	...	...	...	...
Congenital Malformations	55	7	8	70	6	2	1	1
Convulsions	32	7	6	45	5	2	1	...
Meningitis.....	1	4	12	17	12	6	1	1
Nervous Diseases (other) ...	3	2	2	7	2	1	1	2
Bronchitis	51	44	58	153	47	16	3	3
Pneumonia	55	49	138	242	146	65	23	9
Other Respiratory Diseases	1	1	2	4	5	4	1	...
Atrophy, Marasmus	89	18	3	110	3	1	...	...
Found Dead in Bed (over- laid)	14	4	1	19	...	...	...	...
Suffocation	5	2	1	8	...	...	...	...
Violence (other forms)	...	...	5	5	20	14	4	2
Ill-defined Causes.....	1	1	...	2	...	...	...	...
Unclassified	52	13	25	90	25	22	11	9

TABLE E.—MANCHESTER—ESTIMATED POPULATIONS. ANNUAL RATES OF MARRIAGES, BIRTHS, AND DEATHS (a) FROM ALL CAUSES, (b) FROM SPECIFIED CAUSES, AND (c) INFANTILE MORTALITIES; ALSO THE PERCENTAGES TO TOTAL DEATHS OF INQUEST CASES AND OF DEATHS IN PUBLIC INSTITUTIONS; ALSO QUINQUENNIAL AVERAGES 1871-1920.

Year	Estimated Population (Mean)	Persons Married	Annual Rates per 1,000 persons living										Percentage to Total Deaths		Infantile Mortality	Year		
			Births	Deaths (all causes)	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Typhus Fever	Enteric Fever	Simple Continued Fever	Diarrheal Diseases	Violence				
																	Inquest Cases	Deaths in Public Institutions
1871-1875	477,344	24.6	38.9	23.3	0.26	0.64	1.08	0.08	0.78	0.14	0.43	0.21	1.95	0.94	7.2	13.4	198	.. 1871-1875
1876-1880	509,802	18.6	38.7	26.2	0.24	0.53	1.07	0.13	0.84	0.08	0.29	0.11	1.26	0.89	7.5	14.3	172	.. 1876-1880
1881-1885	542,746	17.9	35.1	23.6	0.04	0.71	0.48	0.10	0.68	0.05	0.20	0.03	0.99	0.72	7.0	15.9	175	.. 1881-1885
1886-1890	575,630	16.6	33.4	24.6	0.02	0.83	0.50	0.32	0.54	0.02	0.30	0.01	1.08	0.78	6.9	17.7	183	.. 1886-1890
1891-1895	517,801	16.9	33.2	23.6	0.03	0.62	0.26	0.27	0.64	0.00	0.24	0.01	1.19	0.77	7.1	19.2	186	.. 1891-1895
1896-1900	539,599	18.2	32.5	22.7	..	0.89	0.20	0.13	0.53	0.00	0.18	0.01	1.69	0.73	7.1	20.2	192	.. 1896-1900
1901-1905	554,355	17.4	30.9	20.1	0.01	0.55	0.19	0.22	0.41	0.00	0.13	0.00	1.15	0.72	7.1	24.4	173	.. 1901-1905
1906-1910	660,049	17.0	28.1	17.7	..	0.54	0.16	0.17	0.37	0.00	0.10	0.00	0.76	0.68	7.4	27.3	147	.. 1906-1910
1911-1915	731,677	17.6	24.8	16.4	..	0.50	0.12	0.14	0.25	..	0.05	..	0.84	0.67	7.9	30.8	133	.. 1911-1915
1916-1920	770,330	16.7	19.2	14.1	..	0.24	0.04	0.08	0.21	..	0.02	0.00	0.30	0.49	6.4	32.3	105	.. 1916-1920
1911..	716,734	16.3	25.9	17.1	..	0.47	0.06	0.12	0.20	0.00	0.07	..	1.60	0.67	7.2	28.6	156	.. 1911
1912..	724,168	17.1	25.1	16.2	0.00	0.68	0.07	0.13	0.41	..	0.06	..	0.38	0.65	8.0	30.5	122	.. 1912
1913..	731,556	17.3	25.6	15.8	..	0.35	0.13	0.14	0.19	..	0.06	0.00	0.84	0.69	8.2	30.8	129	.. 1913
1914..	739,136	16.9	25.3	16.8	..	0.40	0.22	0.15	0.38	..	0.05	0.00	0.71	0.72	8.2	32.3	129	.. 1914
1915..	746,793	20.5	22.2	16.3	..	0.60	0.11	0.14	0.09	..	0.05	0.00	0.65	0.61	7.7	31.8	129	.. 1915
1916..	754,531	15.4	20.6	14.6	..	0.24	0.05	0.09	0.40	..	0.03	0.00	0.41	0.59	7.8	33.2	111	.. 1916
1917..	762,349	13.6	16.8	13.4	..	0.36	0.02	0.08	0.06	..	0.01	..	0.37	0.57	7.1	34.0	111	.. 1917
1918..	770,248	14.5	16.8	15.8	..	0.22	0.03	0.08	0.43	..	0.01	0.00	0.19	0.42	5.2	30.6	107	.. 1918
1919..	778,229	18.8	17.6	13.7	..	0.13	0.03	0.05	0.05	..	0.02	0.00	0.22	0.44	5.6	30.6	98	.. 1919
1920..	786,293	21.4	24.3	13.0	..	0.27	0.06	0.09	0.11	..	0.02	0.00	0.33	0.44	6.1	33.0	97	.. 1920
1921 (Census) ..	744,000	19.3	23.7	13.6	..	0.01	0.08	0.12	0.23	..	0.02	..	0.52	0.47	5.8	36.4	97	.. 1921
1922..	746,986	16.7	21.2	11.5	..	0.47	0.08	0.11	0.13	..	0.01	..	0.26	0.48	5.8	36.1	6	.. 1922

The populations and rates prior to 1891 are those for the Unions of Manchester, Chorlton, and Prestwich, which have been taken to approximately represent "Manchester." The City was extended to include Moss Side and Withington in November, 1904, and to include Gorton and Levenshulme in November, 1909.

TABLE F.

MANCHESTER—ANNUAL RATES OF MORTALITY FROM CERTAIN CAUSES OF DEATH

YEAR	ANNUAL RATES PER 1,000 PERSONS LIVING										Puerperal Deaths
	Cancer	Tuberc. Peritonitis 'Tabes Mes.	Phthisis	Other Tuberc. Diseases	Diseases of Nervous System	Diseases of Heart and Blood Vessels	Diseases of Respiratory System	Diseases of Digestive System	Diseases of Urinary System	Diseases of Generative System	
1881-1885	0.50	0.35	2.42	0.57	3.28	1.37	5.41	1.23	0.48	0.08	3.0
1886-1890	0.64	0.36	2.24	0.59	3.09	1.73	5.76	1.23	0.61	0.08	3.2
1891-1895	0.62	0.22	2.09	0.75	1.74	2.53	5.56	1.07	0.52	0.07	2.7
1896-1900	0.73	0.19	2.04	0.63	1.32	2.54	5.03	1.04	0.49	0.09	1.5
1901-1905	0.80	0.16	1.94	0.55	1.17	2.56	4.29	0.95	0.49	0.08	1.2
1906-1910	0.88	0.14	1.65	0.45	0.95	2.56	3.75	0.84	0.54	0.07	1.2
1911-1915	1.01	0.12	1.59	0.38	0.79	2.34	3.45	0.68	0.56	0.09	1.2
1916-1920	1.08	0.09	1.39	0.28	0.54	2.27	2.98	0.51	0.47	0.06	1.5
1901 ..	0.78	0.20	2.09	0.83	1.22	2.55	4.48	1.00	0.49	0.03	2.1
1902 ..	0.79	0.16	2.08	0.55	1.13	2.61	4.71	0.93	0.58	0.11	0.0
1903 ..	0.76	0.18	1.85	0.58	1.25	2.46	3.95	0.99	0.46	0.08	0.8
1904 ..	0.81	0.15	1.98	0.54	1.17	2.71	4.38	1.02	0.50	0.09	1.0
1905 ..	0.86	0.12	1.56	0.48	1.06	2.47	3.70	0.81	0.41	0.09	1.0
1906 ..	0.88	0.14	1.71	0.49	1.06	2.68	3.52	0.91	0.47	0.07	1.6
1907 ..	0.77	0.15	1.70	0.41	1.01	2.53	4.30	0.80	0.56	0.07	1.0
1908 ..	0.89	0.12	1.65	0.47	0.96	2.52	3.91	0.87	0.59	0.06	1.1
1909 ..	0.93	0.13	1.70	0.44	0.87	2.75	3.90	0.85	0.52	0.09	0.0
1910 ..	0.92	0.15	1.49	0.43	0.84	2.33	3.13	0.77	0.54	0.07	1.1
1911 ..	1.05	0.13	1.56	0.39	0.88	2.17	3.43	0.61	0.58	0.08	1.1
1912 ..	1.00	0.10	1.53	0.44	0.76	2.29	3.78	0.60	0.52	0.09	1.1
1913 ..	0.98	0.12	1.42	0.39	0.77	2.28	3.26	0.75	0.50	0.10	1.0
1914 ..	1.00	0.13	1.70	0.36	0.82	2.37	3.44	0.73	0.61	0.09	1.1
1915 ..	1.04	0.12	1.76	0.30	0.74	2.58	3.36	0.69	0.59	0.08	1.1
1916 ..	1.05	0.12	1.64	0.30	0.48	2.39	2.99	0.60	0.54	0.08	1.1
1917 ..	1.01	0.11	1.57	0.36	0.57	2.29	2.79	0.52	0.50	0.06	1.0
1918 ..	1.05	0.10	1.43	0.27	0.65	2.14	3.32	0.47	0.43	0.07	0.0
1919 ..	1.11	0.07	1.20	0.23	0.55	2.24	2.97	0.50	0.43	0.06	2.1
1920 ..	1.19	0.06	1.10	0.23	0.47	2.29	2.83	0.47	0.44	0.04	2.1
1921 ..	1.26	0.07	1.30	0.27	0.54	2.37	2.79	0.51	0.47	0.08	1.1
1922 ..	1.28	0.06	1.27	0.27	0.50	2.45	3.23	0.42	0.51	0.08	1.1

See footnotes to Table E.

LE G, 1922.—POPULATION, AREA, DENSITY. TOTAL BIRTHS AND DEATHS,
WITH BIRTH AND DEATH RATES.

[INSTITUTION POPULATIONS, BIRTHS AND DEATHS, DISTRIBUTED.]

STATISTICAL DIVISIONS	Estimated Population	Area in Acres	Persons to an Acre	BIRTHS		DEATHS		Natural Rate of Increase	Mean Death Rate 1912-1921
				Total	Rate per 1,000	Total	Rate per 1,000		
f Manchester	746,986	21,690	34	15,855	21·23	10,650	14·26	6·97	14·91
Manchester Township.....	109,579	1,646	67	2,990	27·29	2,147	19·59	7·70	22·70
North Manchester	205,827	8,033	26	4,229	20·55	2,612	12·69	7·86	12·77
South Manchester	431,580	12,011	36	8,636	20·01	5,891	13·65	6·36	14·04
Coats	39,877	399	100	1,105	27·71	744	18·66	9·05	22·57
Central	19,082	745	26	426	22·33	435	22·80	-0·47	23·19
George's	50,620	502	101	1,459	28·82	968	19·12	9·70	22·65
etham	42,942	919	47	798	18·58	501	11·67	6·91	11·32
mpsall	12,659	2,212	6	190	15·01	146	11·53	3·48	11·64
ekley	13,350	1,080	12	233	17·45	181	13·56	3·89	11·15
puirhey	17,835	193	93	420	23·54	234	13·12	10·42	14·12
ton	25,563	1,299	18	431	16·86	255	9·97	6·89	9·93
ton Heath	41,172	1,341	31	866	21·03	573	13·91	7·12	14·16
dford	26,633	288	93	653	24·52	364	13·67	10·85	15·37
wick	11,225	96	117	288	25·66	173	15·41	10·25	15·43
ton	14,448	605	24	350	24·22	185	12·80	11·42	12·78
wick	40,890	509	80	958	23·43	590	14·43	9·00	15·89
nshaw	32,757	581	56	630	19·23	413	12·61	6·62	14·37
on (West)	29,048	318	91	695	23·93	418	14·39	9·54	15·97
holme and Kirk.	41,959	1,412	30	701	16·71	453	10·80	5·91	9·96
lton-upon-Med.	59,908	647	93	1,249	20·85	986	16·46	4·39	18·74
ne	64,965	477	136	1,648	25·37	1,145	17·62	7·75	19·27
s Side	35,918	421	85	632	17·60	437	12·17	5·43	12·03
ington	61,313	5,899	10	896	14·61	666	10·86	3·75	10·20
on	43,265	1,141	38	900	20·80	569	13·15	7·65	11·63
ensulme	21,557	606	36	327	15·17	214	9·93	5·24	9·69

TABLE H, 1922.

BIRTHS REGISTERED IN THE CITY OF MANCHESTER, IN ITS MAIN DIVISIONS AND IN DISTRICTS; DISTINGUISHING LEGITIMATE AND ILLEGITIMATE BIRTHS, AND ALSO THE PROPORTION OF MORTALITY AMONG INFANTS OF BOTH CLASSES UNDER ONE YEAR OF AGE.

STATISTICAL DIVISIONS	BIRTHS		Percentage of Illegitimate Births to Total Births	DEATHS UNDER 1 YEAR		PROPORTION OF DEATHS UNDER 1 YEAR PER 1,000 BIRTHS			Deaths under 1 Year per 1,000 Births in the 1922
	Total	Illegitimate		Total	Of Illegitimate Children	Total	Legitimate	Illegitimate	
City of Manchester ...	15,855	775	4.9	1,525	141	96	92	182	11.5
I. Manchester Township	2,990	193	6.5	376	43	126	119	223	18.5
II. North Manchester ..	4,229	150	3.5	359	19	85	83	127	10.0
III. South Manchester ...	8,636	432	5.0	790	79	92	87	183	10.5
I. { Ancoats	1,105	70	6.3	138	20	125	114	286	11.5
{ Central	426	43	10.1	57	5	134	136	116	11.5
{ St. George's.....	1,459	80	5.5	181	18	124	118	235	11.5
II. Cheetham.....	798	28	3.5	61	3	76	75	107	11.5
Crumpsall.....	190	10	5.3	10	1	53	50	100	11.5
Blackley	233	7	3.0	17	2	73	66	286	11.5
Harpurhey	420	19	4.5	38	4	91	85	211	11.5
Moston.....	431	9	2.1	24	...	56	57	...	11.5
Newton Heath.....	866	28	3.2	78	2	90	91	71	11.5
Bradford	653	26	4.0	80	3	123	123	115	11.5
Beswick	288	10	3.5	24	...	83	86	...	11.5
Clayton.....	350	13	3.7	27	4	77	68	308	11.5
III. Ardwick	958	47	4.9	101	10	105	100	213	11.5
Openshaw	630	22	3.5	67	2	106	107	91	11.5
Gorton (West)	695	32	4.6	67	9	96	87	281	11.5
Rusholme and Kirk	701	29	4.1	44	4	63	60	138	11.5
Chorlton-on-Med.	1,249	110	8.8	117	13	94	91	118	11.5
Hulme	1,648	81	4.9	188	16	114	110	198	11.5
Moss Side	632	52	8.2	44	7	70	64	135	11.5
Withington.....	896	26	2.9	55	6	61	56	231	11.5
Gorton	900	24	2.7	84	8	93	87	333	11.5
Levenshulme	327	9	2.8	23	4	70	60	445	11.5

TABLE J, 1922.

INFANTILE MORTALITY IN THE CITY, AND ITS THREE MAIN
DIVISIONS.

DEATH-RATES UNDER ONE YEAR PER 1,000 BIRTHS.

CAUSES OF DEATH	City of Manchester	Manchester Township	North Manchester	South Manchester
Causes	96·18	125·75	84·89	91·48
usles	5·68	13·38	2·84	4·40
opping Cough	2·14	1·67	1·42	2·66
er Com: Infectious Diseases†	0·95	2·68	0·95	0·35
rhœal Diseases	9·78	14·05	7·57	9·38
ercular Diseases‡	2·08	2·68	1·66	2·08
ulsions	2·84	2·34	3·07	2·90
er Nervous Diseases§	1·51	1·67	1·18	1·62
g Diseases	25·17	32·44	22·46	23·97
nature Birth.....	19·55	21·07	21·75	17·95
phy, &c. || .....	6·94	8·03	6·86	6·60
ocation	0·50	1·00	0·47	0·35
nd dead in bed (overlaid) ...	1·20	3·34	0·24	0·93

These are Smallpox, Scarlatina, Diphtheria, Membranous Croup, and various forms of "Fever,"
and the chief forms of Typhus and Typhoid.

These are Phthisis, Tubercular Meningitis, Tabes Mesenterica, and General Tuberculosis
(a).

These are Meningitis, and other diseases of the Brain and Spinal Cord.

These are such ill-defined causes as Atrophy, Marasmus, Debility, Inanition, &c.

TABLE K, 1922.—CITY OF MANCHESTER. ANNUAL RATES OF MORTALITY PER 1,000 PERSONS LIVING AT ALL AGES, IN THE CITY OF MANCHESTER AND IN ITS STATISTICAL DIVISIONS, FROM CERTAIN DISEASES AND GROUPS OF DISEASES.

CAUSES OF DEATH	City of Manchester	Manchester Township	North Manchester	South Manchester	City of Manchester Average of 10 years 1912-1921
All Causes	14·26	19·59	12·69	13·65	14·91
Smallpox.....	...	...	...	...	...
Measles	0·47	1·14	0·33	0·37	0·33
Scarlet Fever	0·08	0·05	0·11	0·08	0·08
Typhus Fever.....	...	...	...	...	...
Influenza.....	0·53	0·52	0·51	0·53	0·56
Whooping Cough	0·13	0·11	0·07	0·17	0·24
Diphtheria	0·11	0·21	0·11	0·09	0·11
Ill-defined Fever.....	...	...	...	...	...
Enteric Fever	0·01	0·02	0·01	0·00	0·03
Diarrhœal Diseases	0·26	0·49	0·18	0·23	0·46
Puerperal Fever	0·04	0·04	0·06	0·03	0·03
Erysipelas	0·02	0·06	0·00	0·02	0·02
Pyæmia, Septicæmia	0·05	0·05	0·05	0·04	0·02
Phthisis (Tuberc: Pulmon:) ...	1·27	2·05	1·13	1·14	1·47
Tubercular Meningitis	0·16	0·18	0·15	0·16	0·17
Tuberc: Periton: Tabes Mes:..	0·06	0·09	0·04	0·06	0·10
Tuberculous Dis: (other)	0·11	0·15	0·11	0·10	0·15
Alcoholism	0·02	...	0·00	0·03	0·04
Cancer	1·28	1·61	1·08	1·29	1·07
Rheumatic Fever	0·08	0·05	0·10	0·08	0·07
Premature Birth	0·42	0·58	0·45	0·36	0·45
Nervous Diseases	0·50	0·59	0·45	0·51	0·64
Heart and Blood Vessels Diseases	2·45	2·75	2·21	2·48	2·32
Bronchitis	1·71	2·36	1·49	1·65	1·55
Pneumonia	1·37	2·52	1·24	1·14	1·46
Respiratory Diseases (other) ...	0·16	0·27	0·14	0·14	0·15
Digestive Organs (Diseases of)	0·42	0·41	0·35	0·45	0·58
Urinary Organs (Diseases of)	0·51	0·54	0·47	0·53	0·50
Old Age	0·63	0·82	0·63	0·57	0·59

Rates per 1,000 births—Puerperal Fever 1·89, Childbirth 1·83.

TABLE I, 1922.

MANCHESTER.—CERTIFICATION OF THE CAUSES OF DEATH IN THE MAIN

DIVISIONS AND IN DISTRICTS.

STATISTICAL DIVISIONS.	Total Deaths	Certified by		Not Certified	Proportion per cent. of Deaths		
		Registered Medical Practitioners	Coroner		Certified by		Not Certified
					Regist'd Medical Practitioners	Coroner	
City of Manchester	10,650	9,951	616	83	93'4	5'8	0'8
Manchester Township...	2,147	1,984	149	14	92'4	6'9	0'7
North Manchester	2,612	2,459	135	18	94'3	5'2	0'7
South Manchester	5,891	5,508	332	51	93'5	5'6	0'9
Ancoats	744	686	52	6	92'2	7'0	0'8
Central	435	400	30	5	92'0	6'9	1'1
St. George's	968	898	67	3	92'8	6'9	0'3
Cheetham	501	466	30	5	93'0	6'0	1'0
Crumpsall ..	146	142	3	1	97'2	2'1	0'7
Blackley	181	178	3	...	98'3	1'7	...
Harpurhey	234	217	16	1	92'8	6'8	0'4
Moston	255	237	13	5	92'9	5'1	2'0
Newton Heath	573	535	32	6	93'4	5'6	1'0
Bradford	364	346	18	...	95'1	4'9	...
Beswick	173	166	7	...	96'0	4'0	...
Clayton	185	172	13	...	93'0	7'0	...
Ardwick	590	550	33	7	93'2	5'6	1'2
Openshaw ...	413	385	26	2	93'2	6'3	0'5
Gorton (West)	418	382	33	3	91'4	7'9	0'7
Rusholme and Kirk. ...	453	427	24	2	94'3	5'3	0'4
Chorlton-upon-Medlock	986	913	61	12	92'8	6'2	1'2
Hulme	1,145	1,075	63	7	93'9	5'5	0'6
Moss Side	437	414	21	2	94'7	4'8	0'5
Withington	666	621	34	11	93'2	5'1	1'7
Gorton	569	542	26	1	95'2	4'6	0'2
Levenshulme	214	199	11	4	93'0	5'1	1'9

NOTIFIABLE INFECTIOUS DISEASES OTHER THAN WHOOPING COUGH AND TUBERCULOSIS.

The diseases included in the Infectious Disease (Notification) Acts, 1889 and 1899 regulations under the Public Health Acts, are as follows: Smallpox, Scarlet Fever, Diphtheria, Typhus Fever, Enteric or Typhoid Fever, Relapsing Fever, Continued Fever, Puerperal Fever, Erysipelas, and Asiatic Cholera, to which have been added Ophthalmia Neonatorum, Cerebro-Spinal Fever, Poliomyelitis, Polio-Encephalitis and Encephalitis Lethargica, Malaria, Dysentery, Trench Fever, Acute Primary Pneumonia, and Influenzal Pneumonia. The following cases were notified in 1922, and the numbers compared with the average of the previous ten years:—

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	Mean	1922
Smallpox	1	1	...	...	...	...	...	14	4	...	2	...
Chickenpox	...	...	...	...	...	...	...	1,153	1,936	2,443	1,844	2,443
Scarlet Fever	1,840	3,715	4,712	2,922	1,185	829	779	1,758	3,829	5,400	2,697	3,829
Diphtheria	474	650	746	548	614	581	518	471	914	1,002	652	...
Typhus Fever	...	...	1	...	...	1	...	...	...	...	...	...
Enteric Fever	242	292	156	174	78	86	68	90	54	74	131	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	124	124	104	94	99	54	66	159	146	138	111	...
Erysipelas	396	412	551	492	320	228	243	392	382	385	380	...
Ophthalmia Neonatorum	503	331	414	414	379	315	307	344	392	465	386	...
Cerebro-Spinal Fever	6	1	2	15	7	7	5	11	11	3	7	...
Poliomyelitis	55	6	12	8	9	14	10	8	7	7	14	...
Polio-Encephalitis	...	...	...	...	...	...	...	4	1	...	2	...
Encephalitis-Lethargica	...	...	...	...	...	...	...	10	31	19	20	...
Malaria	...	...	...	...	...	...	...	312	172	38	174	...
Dysentery	...	...	...	...	...	...	...	6	9	8	8	...
Trench Fever	...	...	...	...	...	...	...	1	1	1	1	...
Primary Pneumonia	...	...	...	...	...	...	...	410	620	1,578	869	...
Influenzal Pneumonia	...	...	...	...	...	...	...	816	205	218	413	...
Measles	...	...	...	...	9,230	10,613	8,448	8,420	10,635	1,135	8,050	...
Rubeola	...	...	...	...	1,262	621	675	186	179	453	563	...
	3,641	5,532	6,698	4,667	13,183	13,349	11,119	14,565	19,528	13,367	16,354	39,641

In 1900 Erysipelas was made notifiable, in 1910 Ophthalmia Neonatorum, in 1912 Cerebro-Spinal Fever and Poliomyelitis, and in 1919 the diseases which first appear under that heading. Measles were made notifiable in 1916, as was also Rubeola.

the deaths from the more common diseases are shown in the following figures:—

Years	Measles	Scarlet Fever	Diphtheria	Enteric Fever	Influenza	Whooping Cough	Diarrhoea	Phthisis
1920-21 Average	243	59	80	26	436	176	345	1106
1922	354	62	82	5	393	99	189	947

SMALLPOX.

Four cases of smallpox were notified during the year 1922, two of which commenced to be ill in December, 1921.

CHICKENPOX.

Chickenpox was made a notifiable disease on September 15th, 1919, for six months, and its notifiability has been renewed from time to time since that date. In the period under review it was made notifiable for six-monthly periods, on November 8th, 1920, May 8th, 1921, November 8th, 1921, and July 17th, 1922. Each case was investigated and reported upon by the district Sanitary Inspector, and cases in which there appeared to be doubt as to the correctness of the diagnosis were seen by Dr. McClure.

CHICKENPOX, 1922.—NUMBER OF ATTACKS AT DIFFERENT AGES.

Under 1 year	185
1—2 years.. .. .	173
2—3 „	279
3—4 „	331
4—5 „	296
5—9 „	1,447
10—14 „	114
15—19 „	14
20—24 „	8
25—44 „	13
45+ „	—
TOTAL	2,860

SCARLET FEVER.

The following figures show the course of the disease in quarters:—

TABLE 1.—SCARLET FEVER.—ATTACKS IN QUARTERS ACCORDING TO DATE OF RASH.

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
1917 ..	174	140	164	351	829
1918 ..	263	187	153	176	779
1919 ..	132	271	437	918	1758
1920 ..	735	654	907	1533	3829
1921 ..	1124	890	1161	2225	5400
1922 ..	1104	1022	654	838	3618

This table shows that the periodic wave is declining.

During 1922 the rate of attack from Scarlet Fever was higher than in the towns used for comparison, and was highest in South Manchester.

TABLE 2.—SCARLET FEVER ATTACKS, 1922.—RATES PER 1,000 LIVING, AS COMPARED WITH THE MEAN FOR FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
Twelve Towns *	1·69	1·46	2·76	3·11	3·30	2·46	3·36
City of Manchester ...	1·26	1·01	2·22	4·87	7·26	3·32	4·84
Manchester Township	0·90	0·99	1·65	4·75	4·65	2·59	2·61
North Manchester	1·21	1·04	1·92	5·17	9·56	3·78	4·71
South Manchester	1·07	1·00	2·50	4·74	6·83	3·23	5·48

* These are Blackburn, Bolton, Bradford, Burnley, Halifax, Hull, Leeds, Liverpool, Oldham, Preston, Salford, and Sheffield.

TABLE 3.—1922—SCARLET FEVER ATTACKS IN DISTRICTS, WITH ATTACK RATE, CASE FATALITY PER CENT., AND REMOVALS TO HOSPITAL PER CENT.

DISTRICTS		ATTACKS	ATTACK RATE PER 1,000 LIVING	† CASE FATALITY PER CENT.	REMOVALS TO HOSPITAL PER CENT.
Man- chester Township	Ancoats	107	2·69	3·7	73·8
	Central	62	3·31	...	90·3
North Manchester	St. George's	117	2·33	0·9	70·1
	Cheetham	182	4·24	0·6	62·1
	Crumpsall	62	4·91	3·2	69·4
	Blackley	47	3·52	2·1	51·1
	Harpurhey	47	2·63	...	53·2
	Moston	138	5·40	...	53·6
	Newton Heath ..	206	5·00	1·9	69·4
	Bradford	132	4·95	2·3	90·1
	Beswick	63	5·72	3·2	85·7
	Clayton	92	6·37	3·3	54·4
South Manchester	Ardwick	125	3·05	1·6	79·5
	Openshaw	256	7·81	1·6	73·8
	Gorton (West) ...	103	3·54	1·0	69·0
	Rusholme & Kirk.	239	5·70	...	50·2
	Chorlton-on-Med.	233	3·89	3·4	71·7
	Hulme	320	4·92	1·9	75·0
	Moss Side	159	4·43	1·3	55·4
	Withington.....	370	6·04	0·8	48·1
	Gorton	424	9·79	1·7	66·7
	Levenshulme	134	6·21	0·7	51·6
City of Manchester ...		3,618	4·84	1·5	65·4

† Corrected ; the fatal cases are those actually occurring amongst the cases notified.

The case fatality is lower than the mean for the past ten years.

TABLE 4.

Year.....	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	Mean	1922
Case fatality per cent.	2·8	2·5	3·1	2·7	3·0	1·8	2·8	2·2	1·2	1·1	2·3	1·5

TABLE 5.—SCARLET FEVER. NUMBER OF ATTACKS AND OF DEATHS ; ALSO THE CASE FATALITY PER CENT. AT DIFFERENT AGES FOR THE THIRTY-ONE YEARS, 1891-1921, AND FOR 1922.

Ages	1891-1921			1922		
	Attacks	Deaths	Case Fatality per cent.	Attacks	Deaths	Case Fatality per cent.
Under 1 year	680	112	16·5	20	3	15·0
1 to 2 years... ..	2,044	294	14·4	45	2	4·2
2 to 3 „	4,291	452	10·5	207	17	8·2
3 to 4 „	6,058	500	8·3	194	9	4·6
4 to 5 „	7,091	435	6·1	207	4	1·9
5 to 6 „	7,793	279	3·6	278	3	1·1
6 to 7 „	7,278	188	2·6	313	2	0·6
7 to 8 „	6,443	126	2·0	253	3	1·2
8 to 9 „	5,324	85	1·6	305	1	0·3
9 to 10 „	4,441	72	1·6	261	...	...
10 to 15 „	13,158	163	1·2	853	1	0·1
15 to 20 „	4,064	68	1·7	316	...	...
20 to 25 „	1,929	32	1·7	162	6	3·7
25 to 35 „	1,807	42	2·3	149	3	2·0
35 to 45 „	529	17	3·2	50	...	...
45 and over	148	6	4·1	5	...	...
All Ages	73,078	2,871	3·9	3,618	55	1·5

Table 6 gives a comparison of the death-rates from scarlet fever in different areas, and shows that the death-rate is slightly higher than that for the entire country.

TABLE 6.—SCARLET FEVER MORTALITY, 1922.—RATE PER 1,000 LIVING, COMPARED WITH MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
England and Wales.....	0'02	0'03	0'03	0'04	0'03	0'03	0'04
105 Great Towns	0'03	0'04	0'04	0'04	0'04	0'04	0'05
London.....	0'02	0'03	0'03	0'05	0'06	0'04	0'07
Manchester City.....	0'02	0'03	0'03	0'06	0'08	0'04	0'07
Manchester Township	0'03	0'05	0'07	0'07	0'05	0'05	0'05
North Manchester	0'04	0'02	0'03	0'04	0'14	0'05	0'08
South Manchester	0'01	0'03	0'03	0'06	0'06	0'04	0'08
155 Smaller Towns	0'02	0'02	0'03	0'03	0'03	0'03	0'03

SCARLET FEVER, 1922.—ATTACKS IN WEEKS, ACCORDING TO DATE OF RASH.

First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
Jan.	7	119	April	8	74	July	8	58	Oct.	7	52
"	14	116	"	15	77	"	15	74	"	14	67
"	21	113	"	22	49	"	22	61	"	21	82
"	28	95	"	29	56	"	29	45	"	28	74
Feb.	4	95	May	6	76	Aug.	5	54	Nov.	4	66
"	11	74	"	13	70	"	12	34	"	11	66
"	18	96	"	20	83	"	19	54	"	18	69
"	25	71	"	27	162	"	26	46	"	25	49
March	4	81	June	3	126	Sept.	2	32	Dec.	2	63
"	11	68	"	10	56	"	9	50	"	9	73
"	18	73	"	17	62	"	16	43	"	16	55
"	25	55	"	24	60	"	23	58	"	23	55
April	1	48	July	1	71	"	30	45	"	30	67
Total ... 1104			Total... 1022			Total ... 654			Total ... 838		

City total, 3,618.

“ RETURN ” CASES.

2,790 patients discharged from Monsall Hospital gave rise to 124 “ return ” cases. The stay in hospital of infecting patients varied from 24 to 96 days, the average being about 50 days. The interval between the discharge of the infecting patient and the occurrence of the rash in the “ return ” case was as follows :—0 to 7 days, 27 cases ; 7 to 14 days, 41 cases ; 14 to 21 days, 21 cases ; 21 to 28 days, 18 cases ; 28 days and over, 17 cases.

The number of persons per room in households where “ return ” cases are indicated in the following table :—

Persons per Room.		No. of Houses.		Per cent.
0 to 1	....	12	....	9·7
1 to 1·5	....	38	....	30·6
1·5 to 2	....	33	....	26·6
2 to 2·5	....	30	....	24·2
2·5 and over	....	11	....	8·9

MILK-BORNE EPIDEMIC OF SCARLET FEVER.

Between May 21st and 31st, 1922, there occurred in the districts of Withington, Rusholme, Moss Side, Chorlton-upon-Medlock, Hulme, and Levenshulme 123 known cases of scarlet fever, due to an infected milk supply. The first intimation of the outbreak was obtained on May 26th, when 19 cases were notified from a district previously comparatively free from infection. The simultaneous occurrence of so many cases pointed to some common cause, and it was found on investigation that all the infected households were supplied with milk by one or other of two dealers, A and B, and, moreover, it was ascertained that B got his milk from A.

A received milk from ten different farms in Cheshire and Derbyshire. He supplied daily to B about 57 gallons, to 25 other retailers 119 gallons, and direct to his own customers about 120 gallons. Sixty-six cases of scarlet fever occurred amongst persons supplied by B, 8 through milk bought from 5 of the other retailers, and 49 amongst those supplied directly by A.

Source of Infection.—At one of the farms whence milk was derived there had occurred a series of cases of sore throat amongst the farm hands, and also a definite case of Scarlet Fever. No other possible source of infection was discovered amongst the employees and families, either in Manchester or on the farms, nor was there any disease of the cattle, which were examined by the Veterinary Surgeon attached to the Public Health Department.

Precautions taken.—After initial sterilization of milk vessels, the supply from the suspected farm was stopped, and any employee with suspicious symptoms was suspended from work. The milk received by A was sterilized daily before distribution, and this precaution was continued for a period of 14 days. The epidemic subsided as rapidly as it began.

Type of Disease.—The age and sex of those infected is given in Table II. The relatively large proportion of adult females attacked will be noted. The predominating type of disease was that of moderately severe Scarlet Fever. There occurred also in the same households, amongst the employees of A, and in the families of four retailers supplied by A, cases in which the only symptom was sore throat without other signs of Scarlet Fever. These cases cleared up in the course of a few days, and at the end of a week there was no evidence that they were infectious. Persons with this condition were isolated for 10 days, and then allowed to resume work. Apparently there was no extension of the disease through them.

TABLE I., showing number of cases of Scarlet Fever notified in the districts concerned during several weeks, the number supplied with milk derived from A or B, and the number of other dealers concerned :—

Week ending	Number of Cases in District	Number supplied by A or B	Number of other Dealers
May 13th	24	Nil	18
„ 20th	30	Nil	23
„ 27th	73	45	24
June 3rd	118	73	30
„ 10th	18	5	12

TABLE II., showing age and sex distribution of persons attacked :—

	0-5 years	5-15 years	15-25 years	25 years and over	Total
Males	8	28	8	6	50
Females	6	33	16	18	73
Total	14	61	24	24	123

TABLE III., showing quantity of milk supplied daily to households :—

Pints	No. of Houses	No. of Houses Infected	Percentage Infected
0·5	72	9	12·5
1·0	205	21	10·2
1·5	59	7	11·8
2·0	113	19	16·8
2·5	7	2	28·5
3·0	34	12	35·3
Over 3·0	40	11	27·5

DIPHTHERIA.

The usual tables for this disease are given below.

The following table shows the number of cases notified each year for the last ten years :—

1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
650	746	548	614	581	518	471	914	1,002	806

TABLE I.

DIPHTHERIA, 1922.—ATTACKS IN WEEKS, ACCORDING TO DATE OF ONSET.

FIRST QUARTER			SECOND QUARTER			THIRD QUARTER			FOURTH QUARTER		
Jan.	7	18	April	8	20	July	8	16	Oct.	7	19
"	14	38	"	15	14	"	15	7	"	14	21
"	21	25	"	22	13	"	22	9	"	21	14
"	28	15	"	29	9	"	29	9	"	28	9
Feb.	4	20	May	6	22	Aug.	5	6	Nov.	4	15
"	11	21	"	13	13	"	12	11	"	11	16
"	18	24	"	20	11	"	19	12	"	18	25
"	25	21	"	27	15	"	26	22	"	25	19
March	5	21	June	3	13	Sept.	2	14	Dec.	2	15
"	11	10	"	10	8	"	9	20	"	9	11
"	18	12	"	17	15	"	16	20	"	16	10
"	25	14	"	24	13	"	23	13	"	23	8
April	1	23	July	1	16	"	30	10	"	30	11
Total...	262		Total...	182		Total...	179		Total..	193	

City total, 806.

TABLE II.

DIPHTHERIA ATTACK RATE PER 1,000 LIVING FOR THE YEAR 1922, COMPARED WITH THE MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
*Twelve Notification Towns ...	1'09	1'03	1'62	1'61	1'39	1'35	1'13
City of Manchester	0'88	0'67	0'59	1'16	1'35	0'93	1'08
Manchester Township.....	0'78	0'88	0'77	1'08	1'07	0'92	1'18
North Manchester	0'99	0'81	0'72	1'26	1'59	1'07	1'16
South Manchester	0'64	0'55	0'49	1'13	1'30	0'82	1'01

* These are in Lancashire and Yorkshire.

The following table shows that the number of attacks is highest at ages 3 to 5:—

TABLE III.

DIPHTHERIA.—NUMBER OF ATTACKS, OF DEATHS, AND CASE FATALITY AT DIFFERENT AGES FOR THE THIRTY-ONE YEARS, 1891-1921, AND FOR 1922.

AGES	1891-1921			1922		
	ATTACKS	DEATHS	CASE FATALITY*	ATTACKS	DEATHS	CASE FATALITY*
Under one year ...	362	228	63'0	30	11	36'6
1 to 2 years ...	1070	525	49'1	45	15	33'3
2 to 3 " ...	1358	470	34'6	72	10	13'9
3 to 4 " ...	1655	457	27'6	58	7	12'1
4 to 5 " ...	1749	406	23'2	56	8	14'3
5 to 6 " ...	1667	333	20'0	72	2	2'8
6 to 7 " ...	1286	192	14'9	76	10	13'2
7 to 8 " ...	992	126	12'7	59	3	5'1
8 to 9 " ...	822	98	11'9	58	3	5'2
9 to 10 " ...	600	63	10'5	48	2	4'2
10 to 15 " ...	1732	92	5'3	141	6	4'3
15 to 20 " ...	779	33	4'2	36	2	5'6
20 to 25 " ...	561	17	3'0	19	...	...
25 to 35 " ...	749	22	2'9	20	...	...
35 to 45 " ...	318	6	1'9	11	...	...
45 and over ...	144	12	8'3	5	...	...
All ages	15844	3080	19'4	806	79	9'8

* The percentages in this column are the actual proportions of fatal cases to the attacks at those ages.

The comparison of the case fatality of 1922 with that for the 31 previous years is matter for great satisfaction.

The case fatality at all ages since 1901 has been as follows:—

1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
28·8	29·4	21·9	20·7	22·4	21·1	20·4	21·8	17·9	19·9	16·5
1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
20·0	14·9	14·3	18·8	11·7	10·8	10·8	9·1	7·3	8·7	9·8

From the following table we see that the apparent incidence of the disease was greatest in the districts of Blackley, Clayton, Hulme, Ancoats, and Openshaw. The percentage of removals is 74·9. The disease is one which yields good results to isolation and care in removing infection.

TABLE IV.

DIPHTHERIA, 1922.—ATTACKS IN DISTRICTS, WITH ATTACK RATE, CASE FATALITY PER CENT., AND REMOVALS TO HOSPITAL PER CENT.

DISTRICTS		ATTACKS	Deaths	ATTACK RATE PER 1000 LIVING	† CASE FATALITY PER CENT.	REMOVALS TO HOSPITAL PER CENT.
Man- chester Township	Ancoats	55	6	1·38	10·9	92·7
	Central	17	2	0·77	11·8	94·1
	St. George's	57	9	1·20	15·8	86·0
North Man- chester	Cheetham	44	3	1·03	6·8	86·4
	Crumpsall	12	2	0·95	16·7	58·4
	Blackley	59	12	4·42	20·3	91·5
	Harpurhey	9	1	0·50	11·1	77·9
	Moston	13	1	0·51	7·7	61·6
	Newton Heath...	28	3	0·68	10·7	78·6
	Bradford	31	4	1·16	12·9	80·7
	Beswick	11	1	1·00	9·1	100·0
	Clayton	32	2	2·21	6·3	53·1
South Man- chester	Ardwick	30	5	0·73	16·7	83·3
	Openshaw	41	...	1·26	...	58·5
	Gorton (West) ...	16	3	0·55	18·7	68·7
	Rusholme & Kirk.	32	3	0·76	9·4	71·9
	Chorlton-on-Med	58	8	0·97	13·8	81·0
	Hulme	100	4	1·54	4·0	72·0
	Moss Side	31	2	1·86	6·5	64·5
	Withington	67	3	1·09	4·5	70·1
	Gorton	39	2	0·90	5·1	48·7
	Levenshulme ...	24	3	1·11	12·5	41·6
City of Manchester...		806	79	1·08	9·8	74·9

† Corrected: the fatal cases are those actually occurring amongst the cases notified.

The figures given below show that in 1922 Manchester had a death-rate from Diphtheria equal to that which held for England generally.

TABLE V.

DIPHTHERIA MORTALITY, 1922.—RATE PER 1,000 LIVING COMPARED WITH MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
England and Wales	0·13	0·14	0·13	0·15	0·12	0·13	0·11
105 Great Towns	0·13	0·15	0·14	0·16	0·15	0·15	0·13
London	0·14	0·17	0·18	0·22	0·25	0·19	0·25
Manchester City	0·08	0·08	0·05	0·09	0·12	0·08	0·11
Manchester Township	0·07	0·12	0·10	0·06	0·15	0·10	0·21
North Manchester.....	0·11	0·06	0·04	0·09	0·11	0·08	0·11
South Manchester.....	0·07	0·07	0·05	0·09	0·12	0·08	0·09
155 Smaller Towns	0·13	0·14	0·12	0·14	0·11	0·13	0·09

EXAMINATION OF "CONTACTS."

So far as was practicable, swabs were taken from the throats and noses of members of each family under 14 years of age in which there had occurred a positive case of Diphtheria.

In all, 905 persons were swabbed, and 74, or 8·2 per cent., were found to be harbouring the Diphtheria bacillus.

With a few exceptions, these were admitted to Monsall Hospital, and kept under observation until three successive swabs proved negative.

SUPPLY OF ANTITOXIN.

Diphtheria antitoxin is supplied free to all medical practitioners in the City, and may be obtained by them at any time during office hours from the Public Health Office or from the district Police Stations at any time during the day or night. The total quantity supplied in this manner was 2,104,000 units (8,000 concentrated phials), at a cost of £110; 1,424,000 units (2,000 units phials), at £94; and 1,000 units (500 units phials for prophylactic treatment), at 2s. 3d.; or a total cost of £204 2s. 3d.

ENTERIC FEVER.

BY DR. W. ST. C. McCLURE.

The number of cases of enteric fever occurring during 1922 was 36.

Table I. shows the attack and death-rates compared with those for England and Wales.

TABLE I.

INCIDENCE OF AND DEATH-RATE FROM ENTERIC FEVER IN MANCHESTER.

Number of Notified Cases, Deaths, and Death-rates per 1,000 living from Enteric Fever in each of eighteen successive years.

YEAR	1905	1906	1907	1908	1909	1910	1911	1912	1913
No. of cases notified	345	384	265	393	369	358	256	242	292
No. of deaths.	55	83	37	75	71	62	46	43	47
Death - rate — Manchester	0·09	0·14	0·06	0·11	0·13	0·09	0·07	0·06	0·06
Death - rate — England and Wales...	0·09	0·09	0·07	0·07	0·06	0·05	0·07	0·04	0·04

YEAR	1914	1915	1916	1917	1918	1919	1920	1921	1922
No. of cases notified and accepted . .	156	174	78	86	68	90	54	74	36
No. of deaths	34	46	22	10	10	19	13	12	4
Death-rate — Manchester	0·05	0·06	0·03	0·01	0·01	0·02	0·02	0·02	0·01
Death-rate — England and Wales..	0·05	0·04	0·03	0·03	0·03	0·01	0·01	0·02	0·01

Distribution.

Of the deaths, there were two in St. George's and one each in Hulme and Withington.

Table II. shows at what ages enteric fever appears to be most prevalent, and also at what ages it is most fatal.

TABLE II.

ENTERIC FEVER.—NUMBER OF ATTACKS, OF DEATHS, AND CASE FATALITY PER CENT. AT DIFFERENT AGES FOR THE THIRTY-TWO YEARS, 1891-1922.

Ages	1891-1922		
	Attacks	Deaths	Case Fatality Per cent.
Under one year	17	7	41·2
1 to 2 years	53	8	15·1
2 „ 3 „	113	16	14·2
3 „ 4 „	166	22	13·3
4 „ 5 „	221	24	10·9
5 „ 6 „	255	28	11·0
6 „ 7 „	253	26	10·3
7 „ 8 „	241	20	8·3
8 „ 9 „	252	21	8·3
9 „ 10 „	251	25	10·0
10 „ 15 „	1445	158	10·9
15 „ 20 „	1593	289	18·1
20 „ 25 „	1549	306	19·8
25 „ 35 „	2261	527	23·3
35 „ 45 „	1108	327	29·5
45 and over	751	258	34·3
All ages	10529	2062	19·6

TABLE III.

ENTERIC FEVER.—ATTACK RATES IN DISTRICTS, 1922, COMPARED WITH THE
MEAN ATTACK RATES, 1911-1921.

Districts	Attack Rate per 1,000 living	Mean Attack Rate, 1912-1921
Ancoats	0·05	0·23
Central	..	0·31
St. George's	0·11	0·25
Cheetham	0·02	0·15
Crumpsall	0·08	0·25
Blackley	..	0·08
Harpurhey	..	0·17
Moston	..	0·10
Newton	..	0·20
Bradford	..	0·21
Beswick	..	0·27
Clayton	0·07	0·20
Ardwick	0·10	0·12
Openshaw	..	0·33
West Gorton	0·17	0·23
Rusholme	0·05	0·21
Chorlton-upon-Medlock	..	0·21
Hulme	0·12	0·23
Moss Side	..	0·08
Withington	0·07	0·06
Gorton	0·05	0·15
Levenshulme	0·05	0·07
City	0·05	0·18

TABLE IV.

ENTERIC FEVER ATTACKS, 1922.—RATES PER 1,000 LIVING, COMPARED
WITH MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
Twelve Notification Towns..	0·15	0·10	0·08	0·08	0·07	0·10	0·01
City of Manchester ..	0·11	0·09	0·11	0·07	0·10	0·10	0·05
Manchester Township.. ..	0·17	0·17	0·12	0·01	0·13	0·12	0·06
North Manchester	0·14	0·11	0·12	0·09	0·14	0·12	0·01
South Manchester	0·08	0·06	0·11	0·08	0·07	0·08	0·06

TABLE V.

ENTERIC FEVER ATTACKS IN WEEKS REPORTED IN 1922, ACCORDING TO
DATE OF ONSET.

First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
Jan .. 7	I		April .. 8	I		July .. 8	..		Oct. .. 7	..	
, .. 14	I		, .. 15	..		, .. 15	..		, .. 14	3	
, .. 21	I		, .. 22	..		, .. 22	..		, .. 21	I	
, .. 28	..		, .. 29	2		, .. 29	2		, .. 28	I	
Feb. .. 4	..		May .. 6	..		Aug. .. 5	I		Nov. .. 4	..	
, .. 11	I		, .. 13	..		, .. 12	I		, .. 11	I	
, .. 18	I		, .. 20	2		, .. 19	I		, .. 18	I	
, .. 25	I		, .. 27	..		, .. 26	I		, .. 25	..	
March 4	I		June .. 3	..		Sept. .. 2	..		Dec. .. 2	..	
, .. 11	..		, .. 10	..		, .. 9	..		, .. 9	I	
, .. 18	..		, .. 17	I		, .. 16	I		, .. 16	I	
, .. 25	..		, .. 24	..		, .. 23	I		, .. 23	3	
April.. I	I		July .. I	2		, .. 30	..		, .. 30	..	
Total..	8		Total ..	8		Total ..	8		Total ..	12	

TOTAL—36.

From the next table we see that Manchester compares not unfavourably with the country generally as regards mortality from enteric fever during the present year.

TABLE VI.

ENTERIC FEVER MORTALITY, 1922.—RATE PER 1,000 LIVING, COMPARED WITH
MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
England and Wales	0·03	0·03	0·01	0·01	0·02	0·02	0·01
London	0·02	0·02	0·01	0·01	0·01	0·01	0·01
Dublin	0·05	0·07	0·03	0·04	0·02	0·04	0·02
City of Manchester ..	0·01	0·01	0·02	0·02	0·02	0·02	0·01
Manchester Township..	0·02	0·01	0·02	0·01	0·02	0·02	0·02
North Manchester ..	0·01	0·02	0·02	0·02	0·03	0·02	0·01
South Manchester ..	0·01	0·01	0·03	0·02	0·01	0·02	0·00

BACTERIOLOGICAL EXAMINATIONS MADE FOR THE
COUNTY BOROUGH OF MANCHESTER DURING THE
YEAR 1922, PUBLIC HEALTH LABORATORY, UNIVERSITY
OF MANCHESTER.

Month	Diphtheria			Typhoid			Tuberculosis					
							Sputum			Milk		
	+	—	Total	+	—	Total	+	—	Total	+	—	Total
January ...	79	506	585	7	16	23	52	150	202	5	31	36
February ...	90	507	597	4	26	30	36	155	191	5	33	38
March ...	60	366	426	5	20	25	42	162	204	4	33	37
April... ...	57	385	442	3	14	17	58	198	256	2	34	36
May	51	297	348	3	16	19	46	164	210	2	31	33
June	38	242	280	1	16	17	45	155	200	2	27	29
July	56	327	383	7	32	39	61	198	259	3	39	41
August ...	34	212	246	6	17	23	34	121	155	2	27	29
September	88	469	557	4	19	23	50	165	215	3	39	41
October ...	59	570	629	—	20	20	33	126	159	3	29	31
November	79	475	554	—	24	24	33	153	186	3	22	25
December...	77	438	515	—	16	16	37	135	172	7	41	48
Total ...	768	4,794	5,562	40	236	276	527	1,882	2,409	41	386	427

Total specimens enumerated above—8,674. Other investigations 478, which include cerebro-spinal fluid 8, milk for dirt bacteria, etc., 188, naso-pharyngeal swabs 38, food poisoning outbreak 128, faeces and urine for typhoid and dysentery, etc., 37, water and soda water 23, swabs, etc., for influenza 16, diphtheria virulence tests 36. Brain and uterine curettings, etc., 4.

CEREBRO-SPINAL FEVER.

BY DR. McCLURE.

Eight cases of cerebro-spinal fever were notified in 1922, the diagnosis being confirmed in each case by the presence of the meningococcus in the cerebro-spinal fluid. The age and sex of those affected and the dates of onset of illness were as follows:—F1, March 17th; M7, March 23rd; F4, April 7th; F5, April 19th; M4, May 14th; M $\frac{6}{12}$, May 22nd; F5, May 28th; F1, August 13th. F1 and M5 recovered; the remainder died.

Contacts.—Thirty-seven family contacts attended at the Public Health Laboratory, and swabs taken from the naso-pharynx of each proved negative.

Other reported cases.—Fifteen other persons were reported to be suffering from suspected cerebro-spinal fever. Cerebro-spinal fluid was obtained from 10, and on examination showed no evidence of this disease. In the remaining 5 cases, 3 of which proved fatal, no lumbar puncture was made, and the provisional diagnosis arrived at after observation was tuberculous meningitis, diphtheria, and in two cases pneumococcal meningitis.

POLIOMYELITIS.

BY DR. McCLURE.

Particulars of notified cases of poliomyelitis are given in the following table:—

Sex	Age	District	Onsets	Notified	Paralysis	Result—Jan., 1923
M	5	Blackley ...	Aug. 27	Sept. 6	Both arms and legs	Permanent paralysis
M	1 $\frac{1}{2}$	Beswick ...	Sept. 27	Oct. 11	Left leg	Permanent paralysis
F	8	C.-on-M. ...	Oct. 11	Oct. 16	—	Died Oct. 15th
M	2	Hulme ...	Sept. 30	Oct. 16	Right leg	Died Oct. 28th
M	5	Rusholme ...	Oct. 21	Oct. 25	Diaphragm	Died Oct. 28th
F	2	C.-on-M. ...	July, 1922	Nov. 7	Right arm	Permanent paralysis
M	1 $\frac{1}{2}$	Bradford ...	Sept. 10	Nov. 13	Right leg	Permanent paralysis

In addition to the cases noted above, health visitors in the course of their work reported 16 children with paralysis of one or other of their limbs which was probably due to an old attack of acute anterior poliomyelitis of which we had not previously known. The dates of onset of these cases were spread over the last 10 years. The mothers were advised as to the steps which should be taken to obtain appropriate treatment.

ENCEPHALITIS LETHARGICA.

BY DR. McCLURE.

During 1922, 9 cases of encephalitis lethargica were notified and accepted as such after investigation and observation.

The following table gives the age-groups and the sex of those attacked, and of those whose illness proved fatal:—

Age Groups	Cases		Deaths		Total Cases	Total Deaths
	M	F	M	F		
Under 10 years ..	..	..	..	..	..	..
10 to 20 years ..	2	1	1	..	3	1
20 to 30 „ ..	..	..	..	..	..	..
30 to 40 „ ..	..	2	..	..	2	..
40 to 50 „ ..	..	..	..	..	..	..
50 to 60 „ ..	1	..	1	..	1	1
60 and over ..	1	2	1	..	3	1
Total ..					9	3

Seasonal Incidence.

1st quarter, 3 cases ; 2nd quarter, 3 ; 3rd quarter, 2 ; 4th quarter, 1.

Local Incidence.

The cases were widely distributed over the City, and no connection between them was traced.

MEASLES AND GERMAN MEASLES.

(NOTIFIABLE IN JANUARY, 1916.)

The numbers notified were in the respective quarters of 1922 :—

Diseases Notified	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
Measles, by Doctors	214	6,810	4,806	1,471	13,301
„ Others	89	2,169	3,091	964	6,313
Total ..	303	8,979	7,897	2,435	19,614
German Measles, by Doctors ..	56	60	19	23	158
„ „ Others ..	8	7	..	4	19
Total ..	64	67	19	27	177

the deaths from Measles in successive years are shown in the following table :—

TABLE I.

DEATHS FROM MEASLES IN THE CITY OF MANCHESTER.

Years	Under One Year			Years of Age				Total 5 Years and upwards	Total deaths at all ages
	Under 3 Months	3-5 Months	6-11 Months	1-	2-	3-	4-		
1890 }	20	65	896	1752	696	396	199	221	4245
1891	1	7	73	152	47	30	16	11	337
1892	4	8	99	163	88	58	38	32	490
1893	5	3	62	98	37	20	19	15	259
1894	1	3	62	127	54	19	9	18	293
1895	1	5	98	215	64	29	20	15	447
1896	3	2	37	80	28	12	8	9	179
1897	0	5	62	98	55	24	17	16	277
1898	0	2	38	55	26	21	13	11	166
1899	0	2	24	37	18	11	3	9	104
1900	0	8	45	67	39	17	15	19	210
1901	2	0	0	1	1	0	0	1	5
1902	1	6	83	159	65	13	10	17	354

The deaths in quarters are given in Table 2 below.

It will be seen that the heaviest mortalities generally occur in the first and second quarters of the year, though one year differs greatly from another in this respect. In 1922 the greatest mortality occurred in the second and third quarters.

TABLE 2—MEASLES, DEATHS IN QUARTERS.

YEAR	1st Quarter	2nd	3rd	4th	Whole Year
1901-1910 (mean) ..	80	122	68	59	329
1911	48	197	61	31	337
1912	214	211	28	37	490
1913	85	105	58	11	259
1914	37	132	50	74	293
1915	153	224	39	31	447
1916	27	84	31	37	179
1917	134	123	14	6	277
1918	36	55	30	45	166
1919	12	32	16	44	104
1920	121	88	1	0	210
1921	1	2	0	2	5
1922	1	162	161	30	354

In Table 3 is given a comparison of Manchester mortality with that occurring in other districts.

TABLE 3.—1922.—MEASLES MORTALITY RATES.—RATE PER 1,000 LIVING, COMPARED WITH MEAN OF FIVE YEARS.

	Mean 1917-21	1922
England and Wales	0·19	0·15
105 Great Towns	0·24	0·22
London	0·25	0·35
City of Manchester	0·20	0·47
Manchester Township	0·38	1·14
North Manchester	0·17	0·33
South Manchester	0·17	0·37
155 Smaller Towns	0·18	0·10

The distribution of the deaths in districts shows that the death-rate was highest in Hulme (1·26), followed by Ancoats (1·23), St. George's (1·18), Beswick (1·07), Central (0·90), Bradford (0·60), and Newton (0·51).

(Table omitted.)

The above table shows that in 1922 the death-rate from Measles was in Manchester considerably higher than that for the country generally.

WHOOPIING COUGH.

The cases of this disease notified are obtained entirely through the schools, and the same disabilities attach to this mode of notification as were experienced in measles. Notwithstanding, these notifications are useful. The cases are visited and dealt with by the Health Visitors in the same manner as cases of measles.

The highest death-rates are in Withington (1.00), Gorton (0.48), Ancoats (0.23), Hulme (0.23), and West Gorton (0.21).

Whooping cough notifications during 1922 :—

First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
544	559	613	446	2,162

TABLE I.

1922.—WHOOPIING COUGH MORTALITY.—RATE PER 1,000 LIVING, COMPARED
WITH MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
England and Wales	0.13	0.29	0.07	0.11	0.12	0.14	0.16
105 Great Towns	0.15	0.34	0.07	0.14	0.13	0.17	0.19
London	0.13	0.43	0.05	0.17	0.12	0.18	0.25
City of Manchester ...	0.06	0.43	0.05	0.11	0.23	0.18	0.13
Manchester Township ...	0.05	0.90	0.06	0.04	0.40	0.29	0.11
North Manchester.. ..	0.05	0.34	0.05	0.09	0.21	0.15	0.07
South Manchester	0.07	0.36	0.05	0.13	0.16	0.14	0.17
155 Smaller Towns	0.15	0.25	0.08	0.10	0.11	0.14	0.15

TABLE 2.—WHOOPIING COUGH, DEATHS IN QUARTERS.

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year
1911	34	56	31	19	140
1912	123	131	32	12	298
1913	24	37	47	31	139
1914	81	140	52	10	283
1915	10	28	11	21	70
1916	82	184	24	10	300
1917	6	5	5	33	49
1918	179	120	28	3	330
1919	8	6	3	23	40
1920	44	20	11	9	84
1921	40	78	31	20	169
1922	24	37	25	13	99

DIARRHŒA.

TABLE 1.—1922.—DIARRHŒA AND SIMPLE CHOLERA MORTALITY.—

DEATHS UNDER TWO YEARS OF AGE PER 1,000 BIRTHS,
COMPARED WITH THE MEAN OF FIVE YEARS.

	1917	1918	1919	1920	1921	Mean	1922
England and Wales	12·18	10·99	9·59	8·3	15·5	11·3	6·2
105 Great Towns	16·14	14·46	12·24	10·4	19·3	14·5	7·6
London ..	18·70	15·67	16·22	9·5	21·3	16·3	7·1
City of Manchester.....	19·00	9·29	11·05	12·4	20·9	14·5	11·3
Manchester Township	39·60	18·20	13·14	18·6	33·8	24·7	17·1
North Manchester.....	13·69	6·87	9·43	9·4	17·1	11·3	8·8
South Manchester	15·12	7·78	11·16	11·7	18·4	12·8	10·5
155 Smaller Towns	10·08	9·73	8·67	7·8	15·6	10·4	5·6

The number of deaths in successive years, and their distribution in quarters of the year, are exhibited in the following figures :—

TABLE 2.—DIARRHŒA AND SIMPLE CHOLERA DEATHS IN QUARTERS, 1912-1921, and 1922.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	Mean	1922
First Quarter.....	49	60	67	49	55	48	30	28	45	59	49	38
Second Quarter..	40	46	53	57	48	30	31	27	54	59	45	59
Third Quarter....	102	351	290	255	135	140	54	59	63	139	159	44
Fourth Quarter...	81	165	114	127	75	61	32	56	88	130	93	50
	272	622	524	488	313	279	147	170	250	387	346	191

This table shows that the mortality was fairly equally distributed throughout the year.

The meteorological data given in the following table show that the third quarter was less warm and dry than the average :—

TABLE 3.

Third Quarter of the years	Mean Temperature	Rainfall, Inches	Humidity, per cent.	Diarrhœa and Simple Cholera Mortality. Annual Rate (third quarter) per 1,000 living
1891-1900 Mean	59°·2	9·9	76%	4·04
1901-1910 Mean	59°·1	8·5	77%	2·81
1911-1920 Mean	59°·4	9·6	78%	1·32
1911	63°·0	6·7	69%	5·48
1912	56°·9	12·3	79%	0·56
1913	59°·4	4·9	88%	1·89
1914	59°·8	9·2	77%	1·57
1915	58°·6	9·5	77%	1·37
1916	60°·2	5·7	79%	0·71
1917	60°·5	10·7	77%	0·73
1918	59°·6	17·2	79%	0·28
1919	58°·7	7·3	77%	0·30
1920	56°·9	12·4	83%	0·32
1921	61°·4	6·8	75%	0·75
1922	56°·1	13·1	80%	0·24

DYSENTERY.

BY DR. W. A. YOUNG.

Three cases of dysentery were notified during the year.

All the cases were notified by medical practitioners.

These cases were ex-service men who had received treatment for this disease while in the service. None of them had been previously notified. One case was treated in hospital and the other two were treated at home. Of the two cases treated at home, one died, the weekly record of registered deaths being the first intimation that we had of his illness.

On 2nd May a Manchester girl, aged 7 years, died at Clitheroe, the death being certified as being due to dysentery. On investigation at her home in Manchester, there was no history of illness simulating dysentery among any of the other members of the family.

None of the cases notified were concerned with the preparation or handling of food.

During the year the 14 cases of dysentery and the 18 carriers which have become known to the department during the last four years have been visited every four months, and the health of the other members of their families has been investigated. The investigation has not, so far, revealed any suspicious symptoms among the members of the patients' or carriers' families, or among their workmates.

There were no cases of dysentery among children notified during the year.

MALARIA.

By DR. W. A. YOUNG.

The number of new cases of malaria notified during 1922 was 19. The notifications came from the following sources :—

Medical Practitioners	The Ministry of Pensions through the Ministry of Health
19	Nil
19	

None of the above-mentioned cases had been previously notified.

Three cases were male patients who had contracted the disease when living abroad, whilst 16 were ex-service men who had served overseas and had received treatment for this complaint when in the army. The ex-service men were stated to have become infected whilst serving in the following countries :—

India	...	...	...	...	...	...	...	11
Egypt	...	...	...	...	...	...	...	3
Salonika...	...	...	...	...	...	...	...	1
Constantinople	.	...	...	...	...	...	...	1
								16

One of the above cases was notified as suffering from acute lobar pneumonia, complicated by malaria, and was found to be an ex-service man who had received treatment for malaria whilst in the army.

Two of the 19 cases received treatment in hospital, the remainder staying at home under the care of the family doctor, or attending the Ministry of Pensions Hospital as out-patients.

The Ministry of Pensions continue to examine and treat, at their Tropical Diseases Clinic, all ex-service men known to be suffering from malaria.

No case of malaria was notified in which there was any suspicion that the disease had been contracted in this country.

During the year three persons died from malaria. All three cases were ex-service men, one contracting the disease in Salonika, one in India, and one in Mesopotamia.

In addition to the above, one man, who had probably contracted malaria in West Africa, died in Blackpool, the cause of death being given as malaria.

TRENCH FEVER.

BY DR. W. A. YOUNG.

One case of trench fever was notified during the year. The patient had been in the army, and while serving in France in 1916 contracted the disease. He recovered, and remained well until June, 1917, when he had a relapse. Since then he has had one slight relapse in January of this year.

The only symptoms complained of during the last attack have been feverishness, severe headache, and aching in both legs.

He was treated by his own medical attendant at home, where he was isolated. No other members of the household complained of symptoms simulating the disease. The house was very clean, and there was no evidence of the presence of lice or other vermin.

VENEREAL DISEASES.

BY DR. W. A. YOUNG.

The scheme for the treatment of venereal diseases which was adopted by the Council in April, 1917, is on the lines indicated in the memorandum published by the Local Government Board in July, 1916, and was fully explained in the Annual Report of 1920.

EXTENT TO WHICH THE SCHEME HAS BEEN DEVELOPED.

Approved Treatment Centres.

There are five Approved Treatment Centres in Manchester and one in Salford. At the Manchester Centres 17 male and 21 female Clinics are held each week. The days and hours of the Clinics at the five Centres are shown in the attached table. Intermediate treatment for male and female patients is given each week-day at St. Luke's Hospital, from 10 a.m. to 5 p.m., and at St. Mary's Hospital, where females only are treated, this treatment is given on one night each week. In addition to these approved treatment Centres, one prematernity Clinic is held at two of the Child Welfare Centres each week, where mothers and their babies suffering from venereal diseases are examined and receive treatment.

Auxiliary Centre for Females.

The Auxiliary Centre for Females at Monsall Hospital, which was opened in April, 1920, has been very successful.

MEDICAL PRACTITIONERS AND THE SCHEME.

All members of the medical profession in the City have been repeatedly advised of the facilities offered for the diagnosis and treatment of venereal diseases. In 1921 a revised circular was sent to all medical practitioners in Manchester, and in this circular the arrangements under the Manchester Scheme are given in detail under the following heads:—

- (1) Provision of laboratory facilities for diagnosis.
- (2) Treatment Centres and Clinics.
- (3) Supply of Salvarsan or its approved substitutes.
- (4) The Auxiliary Centre for females.
- (5) Copies of forms of printed instructions to medical practitioners, patients, and the public generally.

INSTITUTION	ROYAL INFIRMARY, OXFORD ROAD, MANCHESTER	SALFORD ROYAL HOSPITAL, CHAPEL STREET, SALFORD	ANCOATS HOSPITAL, MILL STREET, ANCOATS, MANCHESTER
Day and Hour of Attendance	<i>Skin Clinic—</i> Thursday ...11 a.m. (females and children) Wednesday ...6 p.m. (males) <i>Genito-Urinary Clinic—</i> Wednesday ...11 a.m. (females and children) Thursday ...6-0 p.m. (males) <i>Skin and Genito-Urinary Clinic—</i> Monday... ...6 p.m. (males) Dr. W. Dyson, O.B.E., M.D. Mr. A. Wilson, F.R.C.S., L.R.C.P. <i>Assistant Medical Officer—</i> J. Holker, M.Sc., M.B., Ch.B. (Vict.)	<i>Skin Department—</i> Monday... ...12-0 noon (males) Thursday ...6-0 p.m. (males) Wednesday ...6-0 p.m. (females) <i>Special Genito-Urinary Clinic—</i> Tuesday ...12-0 noon } (males and Friday ...6-0 p.m. } females) Dr. Robert Gibson, M.D., Ch.B. (Edin.), Mr. J. Barlow Macalpine, M.B., Ch.B. (Vict.), F.R.C.S. <i>Clinical Assistants—</i> Dr. Wm. Elwood, M.B., Ch.B. (Aberdeen) Dr. J. Ghosh, F.R.C.S.I., D.P.H. (Dublin)	<i>Skin Diseases—</i> Wednesday ...11-30 a.m. (females) Wednesday and Saturday } 5-30 p.m. (males) <i>Genito-Urinary Diseases—</i> Wednesday ...11-30 a.m. (females) Wednesday and Saturday } 5-30 p.m. (males) Dr. W. J. S. Reid, M.D. Dr. Whitehead, M.B., Ch.B. Dr. L. Anderson Wilson, M.B. (Toronto) <i>Assistant Medical Officers—</i> Dr. W. B. Douglas Drummond, M.B., Ch.B. (Glas.) Dr. S. E. Critchley, M.B., Ch.B. (Vict.)
INSTITUTION	HOSPITAL FOR SKIN DISEASES, QUAY STREET, MANCHESTER	ST. LUKE'S HOSPITAL, DUKE STREET, LIVERPOOL ROAD, MANCHESTER	ST. MARY'S HOSPITAL, WHITWORTH STREET
Day and Hour of Attendance	<i>Skin Clinic only—</i> Daily except Sunday— For men ...9-0 to 10-0 a.m. For women and children— 9-0 to 11-0 a.m. Dr. G. H. Lancashire, M.R.C.S., L.R.C.P. Dr. L. Savatard, L.S.A. (Lond.) Dr. W. Dyson, M.D. Dr. R. Gibson, M.D.	Monday... } 5 to 7 each evening Tuesday } (males and females) Thursday } Friday ... } Wednesday ...5 to 7 p.m. (females only) Daily (Sundays excepted) for irrigation —10 a.m. to 5 p.m. Mr. A. Wilson, F.R.C.S., L.R.C.P. Dr. W. J. S. Reid, M.D. <i>Clinical Assistant—</i> Dr. Elizabeth Byrd, M.B., Ch.B. (Vict.)	Females only— Monday... } Tuesday } 9-0 to 10-30 a.m. Wednesday } Thursday } Friday ... } Thursday ...5-0 to 7-0 p.m. Tuesdays ...Intermediate treatment by nurse, 7 to 8 p.m. Dr. F. H. Lacey, M.D.

Arrangements for Examination of Pathological Specimens.

Professor Dean, at the Pathological Laboratory of the University of Manchester, and later Professor Topley, at the Public Health Laboratory, have carried out the Wassermann reactions and the examination of discharges, etc., for the presence of the *spirochæta pallida* and the gonococcus for all medical practitioners who wish to have their patients examined. At the Royal Infirmary the microscopical examination of discharges is conducted by a trained microscopist, who attends during the clinic hours, but the Wassermann tests are sent to the Public Health Laboratory.

At St. Mary's Hospital and St. Luke's Hospital Professor Topley is responsible for the Wassermann tests, but at Ancoats Hospital and the Skin Hospital the hospital pathologist conducts all the pathological examinations.

Publicity.

As mentioned previously, medical practitioners were notified by circular letter of all arrangements made, and at the same time copies of the various forms to be used were enclosed.

Posters giving the names and addresses of Approved Treatment Centres with the days and hours when Clinics are held are displayed in the public conveniences in the City.

The Manchester Branch of the National Council for Combating Venereal Diseases continues to organise lectures and addresses. Its work for the year will be described later.

SUMMARY OF WORK DONE UNDER THE VENEREAL DISEASE SCHEME DURING
THE YEAR 1922.

(A) APPROVED TREATMENT CENTRES.

The number of new cases presenting themselves at the five Centres was 4,282, compared with 5,078 during 1921 (Table I).

The number of new cases suffering from syphilis and gonorrhœa presenting themselves at the Centres was 1,817 and 1,528 respectively (Table III.), compared with 2,138 and 1,744 during 1921 and 2,526 and 2,037 during 1920.

TABLE I.—NEW CASES.

54A

SHOWING THE NUMBER OF NEW CASES PRESENTING THEMSELVES AT THE VENEREAL DISEASE CENTRES DURING THE YEAR 1922.

Period	Manchester Royal Infirmary				Ancoats Hospital				Manchester and Salford Hospital for Skin Diseases				St. Luke's Hospital				St. Mary's Hospital, Whitworth Street				Total No. of New Cases at the five Centres each Quarter (All Cases)
	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	* G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	
Quarter ending March 31st—																					
Manchester Cases	147	1	89	22	86	...	57	53	53	...	6	7	60	15	99	58	11	...	12	33	
All Cases	187	1	112	25	103	...	68	61	127	...	17	12	98	23	142	93	17	...	14	44	
			325				232				156				356				75		= 1,144
Quarter ending June 30th—																					
Manchester Cases	91	...	81	12	97	...	56	41	39	...	11	10	41	9	103	50	15	...	14	25	
All Cases	126	...	106	16	113	...	69	57	88	...	16	15	71	14	141	77	17	...	20	33	
			248				239				119				303				70		= 979
Quarter ending Sept. 30th—																					
Manchester Cases	101	1	96	16	65	...	98	56	51	...	6	9	42	11	99	35	21	...	7	30	
All Cases	141	1	122	22	83	...	115	62	116	...	14	22	69	22	160	63	27	...	9	41	
			286				260				152				314				77		= 1,089
Quarter ending Dec. 31st—																					
Manchester Cases	146	...	99	12	96	...	92	45	39	...	8	17	34	18	109	46	7	...	14	22	
All Cases	175	...	118	18	109	...	102	56	76	...	14	27	60	27	154	75	14	...	15	30	
			311				267				117				316				59		= 1,070
Total for year ending Dec. 31st, 1922—																					
Manchester Cases	485	2	365	62	344	...	303	195	182	...	31	43	177	53	410	189	54	...	47	110	
All Cases	629	2	458	81	408	...	354	236	407	...	61	76	298	86	597	308	75	...	58	148	
			1,170				998				544				1,289				281		= 4,282

* Transferred to other Centres.

Sy.=Syphilis.

S.C.=Soft Chancre.

G.=Gonorrhœa.

Not V.D.=Not Venereal Disease.

Sy.=Syphilis. S.C.=Soft Chancre. G.=Gonorrhœa. Not V.D.=Not Venereal Disease. * = Transferred to other Treatment Centres. † = Syphilis + Gonorrhœa.

This year's figures show a decrease of 321 syphilis cases and 216 gonorrhœal cases, the decrease being most marked among patients coming from other districts, whereas during last year the decrease was most marked in patients coming from Manchester.

It will be seen that the number of syphilis patients continues to exceed the number of gonorrhœal cases, and the proportion of male to female patients is about 3 to 2 for Manchester cases and about 4 to 3 for the cases from other districts. The disproportion is marked at all of the Centres with the exception of the Skin Hospital (Table II.).

TABLE II.

CLASSIFICATION ACCORDING TO SEX.—NEW CASES, YEAR 1922.

Syphilis and Gonorrhœa only.

Name of Clinic	MANCHESTER				OTHER DISTRICTS			
	Syphilis		Gonorrhœa		Syphilis		Gonorrhœa	
	M.	F.	M.	F.	M.	F.	M.	F.
Manchester Royal Infirmary ...	337	148	338	27	98	46	79	14
Ancoats Hospital	225	119	252	51	43	21	45	6
Hospital for Skin Diseases	88	94	29	2	111	114	29	1
St. Luke's Hospital.....	121	56	368	42	74	47	164	23
St. Mary's Hospital	...	54	...	47	..	21	...	11
	771	471	987	169	326	249	317	55
	1242		1156		575		372	

Among the gonorrhœal cases the proportion of males to females is about 6 to 1 cases from Manchester, and the same for the cases from outside districts. These figures are still disappointing, considering the special arrangements made for the investigation and treatment of female patients in Manchester.

Table III. gives a summary of the work done at the five Approved Centres.

Compared with last year's Table III., the following points may be emphasised :—

(1) The decrease in new cases has already been noted.

(2) Cases discharged after completion of treatment.

(a) Syphilis. Once again, fewer syphilitic patients have been discharged this year (502).

At St. Luke's Hospital the number of syphilitic patients discharged was very small, namely, 37.

(b) Gonorrhœa. The number of gonorrhœal patients discharged after treatment is 484, being a little less than one-third of the new cases.

(3) Cases ceasing to attend Clinic before completing a course of treatment.

Here, as in the returns for previous years, the figures are most discouraging.

(a) Syphilitic patients, 719.

(b) Gonorrhœa patients, 741.

These figures differ very little from the figures for the whole of England published in the Report of the Chief Medical Officer of the Ministry of Health for the year 1921.

(4) The total attendances at the Clinics is shown as 50,319, but in addition there were 14,505 attendances at St. Luke's Hospital for intermediate treatment, and 364 attendances at St. Mary's Hospital for the same purpose, making in all 65,188 attendances for the year.

(5) There has been less "in-patient" treatment this year at Ancoats Hospital and St. Luke's Hospital, but there has been a slight increase at the Royal Infirmary and the Skin Hospital.

(6) Pathological examinations. There were fewer Wassermann tests carried out this year, but there were more examinations for the presence of gonococci.

In order to ensure continuity of treatment, patients who discontinue attending the Clinics are written to and urged to return to the Clinic. The following Table shows the results of this procedure.

TABLE IV.

Name of Hospital ...	MANCHESTER ROYAL INFIRMARY	ANCOATS HOSPITAL	SKIN HOSPITAL	ST. LUKE'S HOSPITAL	ST. MARY'S HOSPITAL	TOTALS
Number of letters sent ...	782	165	371	142	271	1,731
<i>Results :—</i>						
(1) No reply ...	295	105	156	87	166	809
(2) Wrong addresses (letter returned) ...	30	15	13	25	16	99
(3) Replied "under own doctor" ...	18	—	16	—	—	34
(4) Replied "other causes for absence" ...	55	6	7	2	11	81
(5) Returned and still attending ...	200	24	108	6	21	359
(6) Returned for a period only ...	77	5	38	16	38	174
(7) Returned and then transferred to other Centres ...	33	—	6	—	3	42
(8) Returned and discharged	74	10	27	6	16	133
	782	165	371	142	271	1,731
	%	%	%	%	%	%
	37.7	63.6	42.0	61.3	61.3	46.7
	3.8	9.1	3.5	17.6	5.9	5.7
	2.3	—	4.3	—	—	2.0
	7.0	3.6	2.0	1.4	4.1	4.7
	25.6	14.6	29.0	4.2	7.7	20.7
	9.9	3.0	10.3	11.3	14.0	10.1
	4.2	—	1.6	—	1.1	2.4
	9.5	6.1	7.3	4.2	5.9	7.7

At the 5 Centres there were 7 cases which showed "ill effects" after injection of Salvarsan substitutes, all presenting signs and symptoms of toxæmic jaundice. The 7 cases recovered under treatment.

WORK DONE AT THE PRE-MATERNITY CLINICS DURING THE YEAR.
CHILD WELFARE CENTRES.

45, Higher Ardwick, and 40 and 42, Lower Moss Lane.

TABLE V.—NEW CASES.

45, Higher Ardwick								40 and 42, Lower Moss Lane								Total for 2 centres	
Sy.		S.C.		G.		Not V.D.		Sy.		S.C.		G.		Not V.D.			
Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children
11	8	0	0	4	1	12	34	7	2	0	0	2	2	18	23	54	70
19		0		5		46		9		0		4		41		124	

TABLE VI.

TABLE SHOWING THE WORK DONE AT EACH CENTRE DURING 1922
(Taken from Quarterly Returns.)

	45, Higher Ardwick				40-42, Lower Moss Lane				Totals
	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	
New cases	19	0	5	46	9	0	4	41	124
Cases discharged after completion of treatment	0	0	0	46	0	0	8	41	95
Cases ceasing attendance									
(a) Before completing treatment.. . . .	2	0	0	0	4	0	1	0	7
(b) Before final test	1	0	4	0	9	0	0	0	14
(c) Transferred to other centres	1	0	0	0	0	0	0	0	1
Total attendances	616	0	81	102	188	0	122	89	1,198
Doses of Salvarsan substitutes given	295	—	—	—	79	—	—	—	374

	Wass.	Sp.	G.		Wass.	Sp.	G.	Totals		
								Wass.	Sp.	G.
Pathological Examinations—										
(a) Centre	0	0	0		0	0	0	0	0	0
(b) Professors Dean and Topley	90	0	9		67	0	38	157	0	47

Higher Ardwick Centre.

Of the 19 new cases suffering from syphilis, 8 were children, all of whom are under treatment and doing well.

Twelve pregnant women received treatment during the year 1922. The blood tests of these patients at the commencement of treatment were positive. After treatment the blood of 5 became negative, in 1 lysis was delayed, and the remainder gave a 1 in 5 reaction, with the exception of one mother, who had only 5 injections, and gave birth to a dead baby. In her case the blood reaction was positive—1 in 40.

The effect of treatment upon these cases is as follows : Seven mothers gave birth to apparently healthy children, and up to date the latter show no signs of syphilis. One mother, who only received 5 injections, and whose Wassermann was 1 in 40, was delivered of a dead-born baby. One mother, whose general health was bad, thereby interrupting the treatment, had a miscarriage. Another mother, who was under treatment, was delivered of a child, but it died within 24 hours of congenital heart disease. The remaining two mothers have not yet been confined.

Lower Moss Lane Centre.

Of the 9 new cases suffering from syphilis, 2 were children.

Five pregnant women received treatment during the period of gestation, and 4 were delivered of healthy babies ; one mother, who did not have a full course, had a still-born child.

At both Centres, patients who discontinue attendance before treatment is complete are visited at their homes by the Superintendent of the Child Welfare Centres, and are induced to return to the Clinics.

In Table VII. there is a summary of the work done at all of the treatment Clinics, including Child Welfare Centres, and the total figures for 1922 are compared with the corresponding figures for 1921.

AUXILIARY CENTRE FOR FEMALES AT MONSALL HOSPITAL.

TABLE VIII.—SHOWING NUMBER OF PERSONS TREATED AT THE CENTRE DURING 1922.

PARTICULARS	Syphilis	Gonorrhœa	Syphilis and Gonorrhœa	TOTAL
1. Number of females who on 1st January, 1922, were under treatment for	—	25	7	32
2. Number of new patients who attended during the year for the first time—				
(a) Name of Clinic from which patient came—				
Ancoats Hospital	—	27	6	33
Manchester Royal Infirmary	—	2	—	2
St. Mary's Hospital	—	12	—	12
Child Welfare Centres	—	3	—	3
(b) Cases referred to the Centre by Medical Practitioners... ..	—	3	—	3
3. Old patients who have returned for treatment after discontinuing attendance for some time—				
(a) From Clinics—				
Ancoats Hospital	—	6	5	11
St. Mary's Hospital	—	2	—	2
Total Item 2 (new patients)	—	47	6	53
Total Items 1, 2, and 3—Total patients attending during 1922	—	80	18	98
4. Cases discharged cured :—				
(a) Ancoats Hospital... ..	—	19	8	27
Manchester Royal Infirmary	—	—	—	—
St. Mary's Hospitals	—	3	—	3
Child Welfare Centres	—	4	—	4
(b) Medical Practitioners' cases	—	1	—	1
Total 4.—Cases discharged	—	27	8	35
5. Discontinued attendance	—	27	6	33
6. Transferred to other Clinics	—	2	1	3
7. Number of patients still attending on Jan. 1st, 1923	—	24	3	27

The number of new cases was 53, 2 more than in the previous year. The majority of the cases came from Ancoats Hospital.

The total number of attendances was 3,197, an average of 32.6 per case, there being 42 patients who attended on more than 30 occasions. The patients continue to attend for treatment much more regularly at this Centre than they do at the other treatment Centres in the City.

991 Sitz baths were given during the year.

EARLY TREATMENT CENTRES.

The Early Treatment Centres at Great Bridgewater Street and Victoria Street were closed on June 30th, 1922.

The work done during the first six months of the year is shown in the following table :—

Name of Centre	Recently Exposed to Infection and Treated	Not Treated. Referred to Treatment Clinic	Enquiries and Explanations	Total
Great Bridgewater Street	2,552	46	10	2,608
Victoria Street ..	1,880	26	154	2,060
Total	4,432	72	164	4,668

In order to give a complete report of the work done at the two Centres since their opening, the following report has been prepared :—

The two Centres were in existence during the periods as under :—

1. Great Bridgewater Street .. December 15th, 1919, to June 30th, 1922.
2. Victoria Street September 2nd, 1920, to June 30th, 1922.

During the first year publicity was given by means of small posters placed in the male conveniences throughout the City, but on February 15th, 1921, these notices were withdrawn.

TABLE SHOWING THE NUMBER OF PERSONS WHO RECEIVED TREATMENT, THE NUMBER REFUSED TREATMENT AND REFERRED TO TREATMENT CLINICS, AND THE NUMBER OF PERSONS WHO CAME TO MAKE ENQUIRIES ABOUT THE CENTRES, ETC.

Name of Centre	Recently Exposed to Infection and Treated	Not Treated. Referred to Treatment Clinic	Enquiries and Explanations	Total
Great Bridgewater Street	9,501	746	946	11,193
Victoria Street ..	5,466	149	1,219	6,834
Total ..	14,967	895	2,165	18,027

During this period 14,967 persons received treatment at the Centres, and 895 were refused treatment and referred to Treatment Clinics in the City—775 because they showed signs of possible infection, and 120 because they presented themselves for treatment after too long an interval since the time of exposure to infection.

During the first three months the Great Bridgewater Street Centre was in operation the time limit within which treatment was carried out was fixed at 24 hours, but after April 1st, 1920, this was reduced to 12 hours. All persons who presented themselves for treatment after 12 hours had elapsed since exposure were urged to seek medical advice at once in the event of unusual symptoms appearing. On the 14,967 occasions when treatment was carried out, the length of time intervening between exposure to infection and the time of treatment has been examined, and they have been classified as follows :—

Particulars	Gt. Bridgewater Street	Victoria Street
Treatment given within 2 hours after exposure... ..	6,515 = 68·57%	4,310 = 78·85%
Treatment given 2 hours and over, but under 6 hours after exposure	2,417 = 25·44%	1,074 = 19·65%
Treatment given 6 hours and over, but under 12 hours after exposure	524 = 5·52%	80 = 1·46%
Treatment given 12 hours and over, but under 24 hours after exposure, from Dec. 15th, 1919, to March 31st, 1920...	28 = ·29%	Nil —
Treatment given 12 hours after exposure	17 = ·18%	2 = ·04%
Totals	9,501 = 100%	5,466 = 100%

Of the total number of persons who attended at the treatment Centres during the period from January 7th, 1921, to June 30th, 1922, when their ages were recorded, namely, 11,782, only 84 patients were under the influence of alcohol,

and only 9 could be described as intoxicated. The following is an analysis of the ages of the patients who applied for treatment:—

Centre	Under 20	20-25	25-30	30-35	35-40	40 and over	Total
Gt. Bridgewater St.	3	1,275	2,870	1,375	899	398	6,820
Victoria Street ..	11	845	2,733	1,023	320	30	4,962
	14	2,120	5,603	2,398	1,219	428	11,782

As certain patients showed signs of sickness and fainting before or during the disinfection, it was found necessary to supply salvolatile at both Centres. During the two-and-a-half years this restorative has been used on 63 occasions. On 27 of these occasions the patient actually fainted.

The following table shows the towns, etc., from which the patients who received treatment during the two-and-a-half years came:—

Manchester	... ..	12,709
Salford	... ..	1,105
London	... ..	126
Liverpool	... ..	54
Sale	... ..	53
Bolton	... ..	42
Stretford	... ..	38
Stockport	... ..	36
Southport	... ..	29
Other countries, counties, towns, etc., with less than 15 attendances each	... ..	775
		14,967

Since the commencement of the work, notes were taken of 17 cases who appear to have been protected by the methods adopted at the Early Treatment Centres.

So far, there is no proof that the Centres have in a single instance failed to protect. Enquiries have been made at three of the treatment Clinics where gonorrhœa is treated—and where for the past ten months it has been particularly noted whether early treatment has been carried out or not—and I am informed that no case has sought treatment for either gonorrhœa or syphilis after receiving early treatment.

The expenditure incurred has been :—

	Gt. Bridgewater St. (Opened December, 1919)	Victoria Street (Opened December, 1920)
A.— <i>Initial cost</i> —	9,501 cases treated	5,466 cases treated
	£ s. d.	£ s. d.
Alterations, etc.	17 10 9	17 0 5
Equipment, instruments, etc...	3 16 5	4 3 3
	£21 7 2	21 3 8
B.— <i>Maintenance</i> —		
(1) Wages and bonus	596 0 9	440 15 10
Loss of receipts	50 0 0	—
Extra cost of lighting	72 10 0	53 3 4
Attendants' clothing	25 11 9	16 13 8
Extra water.. . . .	5 0 0	3 18 4
	749 2 6	514 11 2
(2) Cost of drugs used for treatment of 9,501 and 5,466 cases respectively	31 11 7	23 17 11
	£780 14 1	538 9 1
Excluding the initial cost of £21, the cost per treatment at each Centre works out as follows :—		
1. Maintenance	18·42d.	22·59d.
2. Drugs used	0·80d.	1·05d.
	19·22d.	23·64d.
Total cost per treatment	1/7	1/11½

Compared with the cost of treating venereal diseases at the five approved Clinics in the City, the cost of disinfection at the Early Treatment Centres was low, and would have been lower still if the Centres had been kept open and the numbers had increased as they were tending to do.

The Centres were closed on June 30th, 1922.

MEDICAL PRACTITIONERS UNDER THE SCHEME.

At the end of 1921 there were 38 medical practitioners in Manchester who were qualified to receive Salvarsan substitutes free of cost.

During the year 1922 nine practitioners were added to the list and three were removed, leaving 44 on the list on December 31st, 1922.

The attendance of medical practitioners at the treatment Clinics during the year was only moderate, as will be seen from the table below :—

Particulars	Manchester Royal Infirmary	Ancoats Hospital	Skin Hospital	St. Luke's Hospital	St Mary's Hospital	Total
Number of Medical Practitioners attending Clinic	6	No record kept	Nil	5	Nil	11
Number of attendances..	42	No record kept	Nil	71	Nil	113

During the year two medical practitioners attended the course on venereal diseases arranged by the University of Manchester, and after attending the Clinics they were granted certificates of proficiency.

Since the commencement of these courses in 1920, 19 practitioners have been granted certificates.

The quantity of Salvarsan substitutes issued by the Medical Officer of Health during the year is seen in the table below :—

TABLE IX.

QUARTER ENDING	DOSES ISSUED TO				TOTAL FOR EACH QUARTER
	Medical Practitioners	H.M. Prison, Strangeways	Two Child Welfare Centres	Institutions other than Approved Centres	
March 31st . . .	506	274	61	16	857
June 30th . . .	370	152	100	—	622
September 30th	331	144	160	4	639
December 31st..	422	204	60	6	692
Total for 1922	1,629	774	381	26	2,810

This is 1,317 doses less than was issued during 1921.

The number of doses supplied to medical practitioners was 822 less than the number supplied last year.

The number of Manchester patients treated by 20 private practitioners during 1922 was 238, the number discharged after a full course of treatment was 77, and the number under observation at the end of the year was 139.

For the collection of specimens for examination, "outfits" were issued by the Medical Officer of Health as follows :—

(a) Tubes, etc., to collect material for Wassermann reactions.

(b) Glass slides, etc., to collect material for microscopical examination.

The number of outfits issued during 1922 was 3,511 (see Table X.).

This is a total of 253 outfits more than was issued during 1921.

PATHOLOGICAL WORK DONE DURING 1922.

(a) At or in connection with approved Centres (see Table III.).

(b) In connection with the outfits issued by the Medical Officer of Health and forwarded to the University Laboratory for examination, the results are as follows :—

TABLE XI.
(1) *Wassermann Reaction.*

	Positive	Negative	Doubtful	Unsatisfactory Specimens (not examined and not included in totals)	Totals
Medical Practitioners ..	226	443	57	2	726
Institutions other than approved Centres ..	104	409	17	16	530
St. Luke's Hospital ..	264	632	93	0	989
St. Mary's Hospital ..	91	212	17	0	320
Two Maternity and Child Welfare Centres	42	101	11	4	154
Monsall Auxiliary Centre	1	6	0	0	7
Totals for the year ..	728	1,803	195	22	2,726

TABLE X.

66A

Quarter ending	Outfits issued to														Total for Quarter	
	Medical Practitioners		Institutions other than Approved Centres		Public Health Dept. (Ophthalmia Neonatorum)		St. Luke's Hospital	St. Mary's Hospital		Two Maternity and Child Welfare Centres		Monsall Auxiliary Centre				
	Wass.	Micro.	Wass.	Micro.	Wass.	Micro.	Wass.	Wass.	Micro.	Wass.	Micro.	Wass.	Micro.	Wass.	Micro.	
March 31st.. .. .	244	26	52	69	0	66	396	100	0	30	18	0	3	822	182	
June 30th	171	21	194	66	0	24	240	60	0	24	5	0	0	689	116	
September 30th	220	16	177	72	1	24	144	100	5	46	48	0	0	688	165	
December 31st	199	22	120	56	0	48	276	80	0	48	0	0	0	723	126	
Total— Wassermann Outfits ..	836	—	543	—	1	—	1,056	340	—	148	—	0	—	2,922	—	
Total— Microscopical Outfits ..	—	85	—	263	—	162	—	—	5	—	71	—	3	—	589	
Total Number of Outfits issued during 1922														3,511		

(2) *Microscopical Examination for Gonococci.*

	Positive	Negative	Doubtful	Unsatisfactory Specimens (not examined and not included in total)	Total
Medical Practitioners ..	32	92	0	0	124
Institutions other than approved Centres ..	39	394	0	0	433
Two Maternity and Child Welfare Centres	4	43	1	0	48
Total for the year ..	75	529	1	0	605

(3) *Microscopical Examinations for Spirochæta Pallida.*

	Positive	Negative	Doubtful	Unsatisfactory Specimens (not examined and not included in total)	Totals
Medical Practitioners ..	1	3	0	0	4
Institutions other than approved Centres ..	0	2	0	0	2
St. Mary's Hospital ..	2	1	0	0	3
Total for the year ..	3	6	0	0	9

PUBLICITY :—

Work of the Local Branch of the National Council for Combating Venereal Diseases.

A report giving an account of the work carried out by the branch during 1922 was published in February of this year.

The work of the Council during the year consisted chiefly in extending its propaganda work by means of lectures. The following addresses were given in Manchester :—

Medical	Social	Total
27	19	46

Of the addresses, 13 were given in works, 20 to women's and 13 to men's organisations connected with working men's clubs, social and political organisations, women's co-operative guilds, and schools for mothers. The widespread industrial depression has again been the chief cause of the fall in the number of lectures given at works, and much time has had to be spent in canvassing firms for permission to give lectures.

During the year the lectures were given to audiences numbering in all approximately 3,000 persons.

The lectures and addresses were well attended, and apparently appreciated.

FINANCE : —

A statement prepared by the City Treasurer shows that the total net expenditure on the scheme for the year 1922 was as follows :—

A.—*Apportionable Expenditure.*

	£	s.	d.
Manchester University, Department of Pathology .	478	6	6
Ancoats Hospital	2,735	2	3
Manchester and Salford Hospital for Skin Diseases	2,144	5	4
St. Luke's Hospital	3,648	17	11
Manchester Royal Infirmary	3,262	3	4
St. Mary's Hospital	1,407	0	7
	£13,675	15	11

B.—*Non-apportionable Expenditure.*

	£	s.	d.
Treatment of Manchester patients by other Local Authorities	585	9	8
Salvarsan substitutes issued by the Medical Officer of Health	475	2	3
Maternity and Child Welfare Centres	377	11	10
Auxiliary Centre for females	421	7	8
Early Treatment Centres	358	9	7
Publicity—Contribution to Funds of N.C.C.V.D. . .	400	0	0
Printing, Stationery, and Advertising	67	6	2
Administration expenses	362	5	4
	£3,047	12	6
Total expenditure for year	£16,723	8	5

Of this total, £3,767 14s. 8d. has been apportioned among other local authorities, and the balance of £12,955 13s. 9d. falls to Manchester.

The Treasury continues to pay 75 per cent. of the expenses of the Venereal Diseases Scheme in Manchester.

No action under the Venereal Disease Act, 1917, has been taken during the year.

To the above may be added a statement of the Venereal disease work done at Crumpsall Infirmary under the Poor Law Venereal Diseases Scheme; also a summary of the Venereal disease work done in His Majesty's Prison, Strangeways, Manchester.

EXTRACT FROM A REPORT ON THE WORK DONE AT THE VENEREAL DEPARTMENT
AT THE CRUMPSALL INFIRMARY (MANCHESTER UNION) DURING THE YEAR ENDED
DECEMBER 31ST, 1922.

The Medical Officer of the Crumpsall Infirmary reports that the work at the Venereal Department has again increased during the year.

ADMISSIONS :—

Total Admissions.

	Syphilis	Soft Chancre	Gonorrhœa
Males	161	5	104
Females	185	1	82
	346	6	186

Admission of Patients from other Unions (included in above figures).

	Syphilis	Soft Chancre	Gonorrhœa
Males	49	3	45
Females	84	1	40
	133	4	85

There were 37 births in this department of the Infirmary during the year.

Persons Treated with Approved Salvarsan Substitutes.

	Manchester Union	Other Unions
Total number—Males	75	38
Females	74	60
	149	98

The total number of injections of Salvarsan substitutes has fallen from 2,595 in 1920 and 2,622 in 1921 to 1,400 in 1922.

Pathological Examinations.

(a) The number of Wassermann examinations carried out at the Manchester University totalled 734, examinations for detection of Gonococci 141.

STILL-BIRTHS AND ABORTIONS.

Table Showing the Number of Still-births and Abortions.

	Syphilis	Gonorrhœa
Mothers—Still-births	2	—
Abortions	2	—

With the exception of two of the above cases the mothers had no treatment prior to delivery.

SUMMARY OF WORK DONE IN CONNECTION WITH VENEREAL DISEASE IN HIS MAJESTY'S PRISON, STRANGWAYS, MANCHESTER, DURING THE YEAR 1922.

The total number of persons treated for Syphilis during 1922 was—

Males.	Females.	Total.
125	91	216

Approximately 75 per cent. of the above patients were stated to have come from Manchester.

The total number of doses of Salvarsan substitutes administered was 1,338, of which 1,004 doses were supplied by the Manchester Corporation.

The total number of persons treated for Gonorrhœa during the year was—

Males.	Females.	Total.
131	6	137

REPORT OF WORK DONE DURING 1922 UNDER THE RATS AND MICE (DESTRUCTION) ACT, 1919.

By DR. W. A. YOUNG.

The Act has been in force since January 1st, 1920.

During the year the work of rat destruction has been carried out on lines similar to those adopted during the previous years, the routine method of which was outlined in last year's report.

Particular attention was again paid to the preventive work—*i.e.*, protection of foodstuffs, removal of refuse, and rat-proofing of buildings. This was also dealt with in last year's report, and need not be repeated except to emphasise the vital importance of this work, the value of which is not generally realised.

The work which was in hand on 49 premises at the end of last year has been dealt with as follows:—

Business Premises		Dwelling-houses	
Rat Proofing and Destruction	Destructive Measures only	Rat Proofing and Destruction	Destructive Measures only
Rat Catcher and Contractor 8	Occupier ... 7	Owner & Occupier 5	Occupier ... 6
Rat-catcher ... 4			
Occupier and Contractor... 1			
Occupier ... 13			
Owner and Occupier ... 5			
31	7	5	6

During the year under review 516 premises were visited, and 672 revisits were made during progress of the work. On inspection, no evidence of rats was found on 115 of the premises visited; these are chiefly premises which were entered by the Rat Executive Officer (Mr. John Potts, D.S.O.) when dealing with complaints on adjacent property.

The work done on the remaining premises is as follows:—

Business Premises.

Rat Proofing and Destruction		Destructive Measures only	
	Premises		Premises
Rat-catcher and Contractor ...	13	Rat-catcher ...	2
Rat-catcher ...	58	Rat-catcher (yearly contract) ...	7
Occupier and Contractor ...	11	Occupier ...	55
Occupier ...	17		
Owner and Occupier... ..	2		
Owner and Contractor ...	3	Mice ...	4
	104		68

In addition, work is in progress on 2 business premises, and arrangements are not yet completed in 19 instances.

Six other business premises were dealt with as follows:—

Four premises where food preparation is carried on were referred to the Housing Manager after inspection, in order that the work found necessary could be included in specifications which were about to be drawn up.

One of the premises has since been destroyed by fire.

One owner requested a specification of work required to render the premises rat-proof before letting them for a fish and poultry business.

These latter premises were not rat-infested.

Dwelling-houses.

Rat Proofing and Destruction					Destructive Measures only				
				Premises					Premises
Rat-catcher and Owner	...	...	...	16	Occupier	...	...	...	127
Rat-catcher and Occupier	...	...	...	3	Rat-catcher	...	...	...	2
Owner and Occupier	...	...	...	37					
Owner	...	...	...	1	Mice	...	...	...	7
Occupier	...	...	...	2					
				<u>59</u>					<u>136</u>

Action is also being taken in 7 other instances. The number of rats known to have been destroyed on the various premises dealt with was 3,052.

A hunt carried out on the Fallowfield Allotments resulted in the capture of 43 rats during one afternoon.

Fumigation was carried out on several occasions, but the results obtained were not always satisfactory, owing to the conditions existing on the premises. This method is most suitable for outdoor work, and the machine has been found very useful for tracing burrows under the pavements in the streets, thus showing how rats gain access to blocks of houses from defective sewers, etc.

During the inspection of premises, evidence was found of rats burrowing in front of the houses, and also under the passages, etc., at the rear of the houses. The Paving and Highways Department was requested to carry out examinations in 26 such instances, and in 24 of them it was found that the settlements were due to rats.

It has been found that when serious infestation recurs in large blocks of property, or when, in spite of destructive measures, rats keep reappearing, definite evidence is generally forthcoming of a communication with a defective sewer or drain, by which means the rats enter the property. When found, these defects have been remedied.

WORK DONE BY THE SANITARY SECTION OF THIS DEPARTMENT IN CONNECTION
WITH DEFECTIVE DRAINAGE SYSTEMS ON RAT-INFESTED PREMISES
DURING 1922.

Included in return for 1921 as work not completed... 11 notices, 43 premises.

Work done by the House Drainage Department... 2 notices, 7 premises.

Work done by owner's contractor 8 ,, 30 ,,

Still awaiting structural alterations 1 ,, 6 ,,

11 notices, 34 premises.

(A) *Letters received from Medical Officer of Health, 1922* 14

Drains in fair condition ; no action taken 1

Entered for examination 11

Awaiting structural alterations... .. 1

Passage sewer examined by District Surveyor, and reported to Committee
for reconstruction 1

14

Entered for Examination—

11 examination notices, 66 premises.

Result of Examination—

Drains defective 7 notices, 48 premises.

Minor defects only 4 ,, 18 ,,

11 notices, 66 premises.

Action taken—

Drainage notices served 8 notices, 39 premises.

Work done without notice 1 ,, 1 ,,

Awaiting plans for W.C. chambers 1 ,, 18 ,,

Notices in course of preparation 1 ,, 8 ,,

11 notices, 66 premises.

Drainage Notices Served—

Work done by House Drainage Department... 1 notice, 3 premises.

Work done by owners' contractor 4 ,, 18 ,,

In progress by House Drainage Department... 1 ,, 10 ,,

Not expired 2 ,, 8 ,,

8 notices, 39 premises.

(B) *Additional reports were sent to the Medical Officer of Health concerning premises where examination of drains revealed evidence of rats—*

10 reports, 11 examinations.

Result of Examinations—

Drains in fair condition ; no action taken ...	I notice,	7 premises.
Drains defective	10 „	35 „
11 notices, 42 premises.		

Drainage Notices Served—

Work done by House Drainage Department...	2 notices,	6 premises.
Work done by House Drainage and Surveyors'		
Department	I „	13 „
Work done by owners' contractor	5 „	14 „
Not expired	I „	I „
Allowed to stand in abeyance pending provision of additional W.C. accommodation	I „	I „
10 notices, 35 premises.		

Drainage work not yet completed	54 premises.
Drainage notices not yet expired	2 „

Under the Rats and Mice (Destruction) Act, the various Corporation Departments are responsible for all land and buildings under their charge, and the following table shows the action taken during 1922 :—

Department	*Baits laid	Baits taken	Dead Rats found	Rats killed by other methods
City Engineer's... ..	39,774	32,839	19	13
Cleansing	500	308	—	2,460
Electricity	12,000	12,000	—	49
Tramways	2,330	1,800	—	—
Parks and Cemeteries.	No	figures kept		
Markets	—	—	—	1,317
Fire Brigade	—	—	—	—
Waterworks		No record		
Rivers		No record		
Gas	1,400	1,107	—	61
Total	56,004	48,054	19	3,900

412 letters were sent out by this section of the Public Health Department during the year.

Letters to occupiers and owners specifying work required...	292
Corporation Departments	99
Ministry of Agriculture	2
Various	5
Rat-catchers	14

412

Number of notices served under Rats and Mice (Destruction) Act, 1919	2
Number of rat notices complied with	2
Prosecutions	Nil

One notice served during 1921 has been complied with during 1922.

One National Rat Week was held during the year (November 6th to November 11th). The following special measures were taken :—

The general public was notified of the rat week by means of posters, etc., and was requested to make special efforts for rat destruction during the week. Posters were fixed in public places throughout the City, and 300 letters were sent to occupiers of land and buildings where the nature of the business carried on was likely to prove an attraction to rats—grain dealers, provision merchants, and occupiers of restaurants being included.

No return of results was asked for, as the experience gained during a previous rat week showed that very few returns were received, and that reliable information was difficult to obtain.

The Act was advertised twice during the year by means of large posters throughout the City.

NOTIFICATION OF TUBERCULOSIS.

TABLE 2.

PHTHISIS—NUMBER OF NEW CASES OF PULMONARY TUBERCULOSIS
NOTIFIED DURING THE YEARS 1900 TO 1922.

Year	Poor-law Cases	Institutions	Private Practitioners	Total
(1) 1900*	578	455	540	1573
1901.....	625	373	341	1339
1902.....	667	305	303	1275
1903.....	556	550	251	1357
1904.....	512	440	250	1202
1905.....	527	588	291	1406
1906.....	565	510	304	1379
1907.....	634	646	310	1590
(2) 1908.....	659	498	346	1503
1909.....	681	542	384	1607
1910.....	543	760	356	1659
(3) 1911.....	517	897	423	1837
(4) 1912.....	488	947	969	2404
(5) 1913.....	345	717	1350	2412
1914.....	483	877	1304	2664
1915.....	279	740	1194	2213
1916.....	322	817	1410	2549
1917.....	470	716	1061	2247
1918.....	268	563	1015	1846
1919.....	208	538	845	1591
1920.....	206	629	672	1507
1921.....	257	632	722	1611
1922.....	233	567	656	1456
Total	10623	14307	15297	40227

* This table does not include 425 cases notified in 1899.

- (1). Voluntary notification of Pulmonary Tuberculosis, Manchester scheme.
- (2). Compulsory notification (Tuberculosis Regulations) from Poor Law institutions.
- (3). Compulsory notification from voluntary institutions.
- (4). Compulsory notification of Pulmonary Tuberculosis by all practitioners.
- (5). Compulsory notification of all forms of Tuberculosis.

TABLE I.

NOTIFICATIONS—JANUARY 1ST TO DECEMBER 31ST, 1922

Age Periods	NOTIFICATIONS ON FORM A												Total Notifications on Form A	NOTIFICATIONS ON FORM B				Total Notifications on Form B	NOTIFICATIONS ON FORM C	
	Number of Primary Notifications													Number of Primary Notifications					Poor Law Institutions	Sanatoria
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	Total Primary Notifica- tions		Under 5	5-	10 to 15	Total Primary Notifica- tions			
Pulmonary Males	5	15	55	38	69	72	146	191	164	61	22	838	1,011	..	2	5	7	12	163	864
„ Females	1	23	47	47	69	76	142	102	52	30	17	606	754	..	3	2	5	11	70	415
Non-Pulmonary Males	6	77	65	50	39	13	14	15	8	4	8	299	398	1	12	9	22	33	10	80
„ Females.. ..	7	56	47	45	38	27	19	9	10	5	5	268	344	..	8	8	16	28	9	74
Totals.. .. .	19	171	214	180	215	188	321	317	234	100	52	2,011	2,507	1	25	24	50	84	252	1,433

TABLE 4.
PRIMARY NOTIFICATIONS AND DEATHS FROM PULMONARY AND NON-PULMONARY TUBERCULOSIS, 1917-1922.

Pulmonary Tuberculosis	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	TOTAL	
												Notifications	Deaths
Notifications, 1917	12	65	152	166	194	185	410	432	335	181	104	2,236	1,196
Deaths, ,, ...	4	20	20	42	110	109	189	273	237	121	71		
Notifications, 1918	1	46	106	115	200	177	373	352	278	136	54	1,838	1,103
Deaths, ,, ...	3	19	16	41	100	84	197	237	230	129	47		
Notifications, 1919	2	44	118	120	169	154	280	324	214	112	53	1,590	951
Deaths, ,, ...	2	14	19	26	88	92	162	212	195	100	41		
Notifications, 1920	3	22	98	96	142	154	279	300	231	107	38	1,470	868
Deaths, ,, ...	4	3	6	27	73	74	152	205	201	90	33		
Notifications, 1921	10	39	104	99	137	168	317	302	263	113	46	1,598	967
Deaths, ,, ...	4	16	7	18	110	102	160	232	200	83	35		
Notifications, 1922	6	38	107	92	138	148	288	293	216	91	39	1,456	947
Deaths, ,, ...	5	15	7	14	74	117	191	202	185	96	41		
Total notifications	34	254	685	688	980	986	1947	2003	1537	740	334	10,188	6,032
Total deaths	22	87	75	168	555	578	1051	1361	1248	619	268		

Non-Pulmonary Tuberculosis	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	TOTAL	
												Notifications	Deaths
Notifications, 1917	32	186	172	169	103	49	62	39	29	21	17	879	359
Deaths, ,, ...	49	111	50	42	27	14	25	18	6	9	8		
Notifications, 1918	13	141	152	125	89	46	42	31	23	21	10	693	287
Deaths, ,, ...	23	86	35	37	29	15	12	12	14	14	10		
Notifications, 1919	23	75	86	74	63	21	31	23	19	10	6	431	237
Deaths, ,, ...	24	66	27	34	22	16	12	11	15	6	4		
Notifications, 1920	19	74	107	92	73	34	40	26	18	13	4	500	222
Deaths, ,, ...	22	62	27	27	20	10	16	17	8	7	6		
Notifications, 1921	16	91	129	97	69	40	43	21	16	15	8	545	252
Deaths, ,, ...	20	61	33	31	36	15	20	18	12	5	1		
Notifications, 1922	13	134	132	112	77	40	33	24	18	9	13	605	242
Deaths, ,, ...	28	85	31	23	18	12	8	8	12	6	11		
Total notifications	116	701	778	659	474	230	251	164	123	89	58	3,653	1,599
Total deaths	166	471	203	191	152	82	93	84	67	47	40		

Table 6.

TUBERCULOSIS (NON-PULMONARY).—PRIMARY CASES NOTIFIED DURING 1922 (JANUARY 1ST TO DECEMBER 31ST).

76C

Location of Disease	AGE GROUPS																				Totals	
	0—		5—		10—		15—		20—		25—		35—		45—		55—		65—			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Brain :—Tumour	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
Meninges	24	15	5	6	—	—	3	3	—	—	—	1	—	1	—	—	—	—	1	—	33	26
Hydrocephalus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glands :—Cervical	15	9	30	19	27	30	10	18	6	13	6	7	—	2	1	—	—	—	—	2	95	100
Mesenteric	2	—	—	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
Axillary	—	—	—	—	—	2	—	—	—	—	—	1	1	1	—	—	1	—	—	—	2	4
Inguinal	—	—	1	—	1	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	3	1
Tuberculous Peritonitis	10	9	6	6	7	5	7	2	—	2	1	2	—	—	—	2	1	—	—	—	32	28
Tuberculosis of Abdomen	8	8	6	3	2	4	—	1	—	—	—	—	1	—	—	—	—	—	—	—	17	16
„ of Mediast. and Bron.	3	—	2	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	4
„ of Pleura	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
„ of Breast	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ of Intestines	1	1	—	—	1	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—	3	3
Joints :—Spine	4	5	6	2	—	3	2	4	—	1	1	—	1	2	—	—	—	1	1	—	15	18
Hip	1	2	7	3	2	1	2	2	2	2	2	2	4	—	2	1	—	1	—	—	22	14
Elbow	—	—	1	—	—	—	1	—	—	—	1	—	1	—	—	1	—	—	—	—	4	1
Ankle	—	3	—	1	1	—	—	1	—	—	1	—	—	—	—	—	—	—	1	—	3	5
Wrist	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	1	—	3	—
Shoulder	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Knee	—	2	1	2	1	—	1	1	—	1	—	—	2	—	1	—	—	—	—	1	6	7
Bones :—Various	6	5	2	—	7	—	6	2	2	1	—	2	1	1	—	2	1	2	2	—	27	15
Tuberculosis of Skin	1	1	9	6	4	5	2	4	—	5	1	3	2	1	—	1	—	1	—	2	19	29
General Tuberculosis	4	2	1	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	5	4
Special Organs :—Ear	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Nose	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bladder, etc.	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Kidney	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
Testicle etc.	2	—	—	—	—	—	—	—	2	—	—	—	—	—	3	—	—	—	—	—	3	—
Muscles, etc.	—	1	—	—	—	—	—	—	—	2	—	—	—	—	—	1	—	—	—	—	5	—
Pharynx	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Rectum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified	1	—	—	—	—	1	1	—	—	—	1	—	—	—	—	1	1	—	1	—	5	2
Totals	84	63	77	55	59	53	39	38	13	27	14	19	15	9	8	10	4	5	8	5	321	284

TABLE 3.

NEW CASES OF NON-PULMONARY TUBERCULOSIS NOTIFIED DURING THE YEARS 1913-1922, THE ORDER OF THE LOCAL GOVERNMENT BOARD TAKING EFFECT IN FEBRUARY, 1913. (MALES AND FEMALES.)

Year	Total	
	Males	Females
1913	759	714
1914	519	413
1915	422	415
1916	418	467
1917	433	449
1918	345	353
1919	206	228
1920	280	257
1921	295	281
1922	321	284
TOTAL	3,998	3,861

TABLE 5.

SOURCES OF NOTIFICATION OF TUBERCULOSIS DURING 1922.

Source	Pulmonary	Non-Pulmonary	Totals
Crescent Road Institution	69	11	80
Withington Hospital	111	39	150
Booth Hall	45	35	80
Outside Poor Law	8	..	8
Manchester Royal Infirmary	34	69	103
Ancoats Hospital	16	45	61
Skin Hospital	..	37	37
St. Mary's Hospital	10	21	31
Northern Hospital	4	17	21
Jewish Hospital	9	1	10
Pendlebury Hospital	1	4	5
Medical Mission	..	..	..
Hulme Dispensary	..	..	..
Chorlton-upon-Medlock Dispensary	..	..	..
Gartside Street Dispensary	17	36	53
Hardman Street Dispensary	303	33	336
Bowdon Hospital	14	..	14
Asylums	28	2	30
Schools	12	38	50
Tuberculosis Staff	67	13	80
Military	12	3	15
Various Sources	40	21	61
Private Practitioners	656	180	836
Total	1,456	605	2,061

The Public Health Work is summarised in the following Table and Statement:—

TABLE 7.—STATISTICS RELATING TO THE NOTIFICATION OF PHTHISIS.

	1922	1921	1920	1919	1918	1917	1916	1915	1914	1901 to 1913	1899 Sep. 1 to Dec. 31 1900
<i>Cases Visited and Registered—</i>											
Males	913	989	1053	1031	1197	1431	1526	1448	1612	13153	1017
Females	678	654	631	723	744	922	1109	1110	1094	8122	732
Totals	1591	1643	1684	1754	1941	2353	2635	2558	2706	21275	1749
<i>Houses Disinfected—</i>											
1. By Corporation—											
(a) With solution of chlorinated lime only	997	2133	2082	2507	2431	2934	635	869	994	8434	581
(b) With lime solution only	0	0	0	0	0	0	0	0	0	17	109
(c) *By Esmarch's method and solution of chlorinated lime	717	0	0	0	0	0	1878	2415	3123	17232	0
Totals	1714	2133	2082	2507	2431	2934	2513	3284	4117	25683	690
2. By Tenants—											
*Esmarch's method or Chlorinated lime, etc.	6268	6157	4891	4633	4167	3523	1799	3580	4564	35620	1299
Totals	7982	8290	6973	7140	6598	6457	4312	6864	8681	61303	1989
<i>Specimens of Sputum Examined—</i>											
Positive... ..	528	534	437	305	401	465	721	781	1052	6601	104
Negative	1946	1585	1729	1342	1081	1741	1720	1576	2269	12022	151
Totals	2474	2119	2166	1647	1482	1936	2441	2357	3321	18623	258
<i>Cases reported as sent to Hospital</i>	2052	2139	2153	2035	2315	2400	2078	1719	2718	21678	991
<i>Notified from common lodging-houses</i>	80	102	115	80	117	143	172	212	283	2922	187
<i>Number of cases under observation</i>	9258	8606	7990	7318	6511	6898	6327	5690	5941	33102	about 600

* Esmarch's method resumed in August, 1922, after suspension due to Food Control Order.

3,174 special cases have been entered in the Business Book for investigation and cleansing after removal to hospital, change of residence, death, or under special circumstances.

504 tenants have allowed the removal of bedding, etc., for disinfection ; or have themselves burned it in a few instances.

47,556 cardboard boxes have been prepared in the office and supplied to patients for spitting purposes in the home.

612 spit bottles have been supplied for use outside the house.

12,700 visits have been made by the Enquiry Officers during the year.

36,983 letters were sent out, of which 137 were to owners with reference to the disinfection of houses, with subsequent correspondence in many instances.

699 notices warning against spitting on floors, etc., have been supplied to offices and workshops.

The fate of patients treated in the Crossley Sanatorium and Baguley Sanatorium is set forth in the following tables. Baguley Sanatorium is an institution for advanced cases, and the results are such as might be anticipated.

If patients treated in the Crossley Sanatorium do not show a higher proportion of survivors, it is to be considered that cases have not been sent to this institution at a sufficiently early stage to obtain the best results. But the figures in recent years are hopeful.

TABLE 8.
CROSSLEY SANATORIUM.
Males.

Year	No. of new cases	No. of re-admissions	Died in the Sanatorium	Died elsewhere	Lost sight of	Known to be still living, Dec. 31st, 1922
1905	16	1	..	11	4	1
1906	18	2	1	14	3	..
1907	29	2	1	21	5	2
1908	36	3	1	25	8	2
1909	27	4	2	15	7	3
1910	27	5	..	16	7	4
1911	38	2	..	26	7	5
1912	53	3	1	30	13	9
1913	151	3	..	72	46	33
1914	184	8	1	78	71	34
1915	140	10	3	49	54	34
1916	118	8	1	31	36	50
1917	113	12	..	33	33	47
1918	98	18	..	20	21	57
1919	114	24	..	23	15	76
1920	105	22	1	19	21	64
1921	124	26	1	23	9	91
1922	115	28	1	9	5	100
Total	1,506	181	14	515	365	612

TABLE 8—*continued.*
 CROSSLEY SANATORIUM—*continued.*
Females.

Year	No. of new cases	No. of re-admissions	Died in the Sanatorium	Died elsewhere	Lost sight of	Known to be still living, Dec. 31st 1922
1905	14	..	1	10	2	1
1906	14	1	..	10	3	1
1907	16	2	..	14	1	1
1908	13	3	..	13	..	..
1909	16	1	..	12	1	3
1910	11	4	..	7	4	..
1911	18	2	..	11	2	5
1912	31	3	..	13	13	5
1913	67	..	..	9	37	21
1914	69	5	..	14	30	25
1915	67	5	..	13	35	19
1916	74	3	..	14	32	28
1917	68	5	1	16	17	34
1918	61	9	..	11	18	32
1919	62	5	..	18	9	35
1920	56	8	..	13	12	31
1921	91	12	..	21	11	59
1922	92	13	..	6	2	84
Total	840	81	2	225	229	384

As regards Baguley Sanatorium, inasmuch as this institution is mainly occupied by advanced cases, the same results cannot be expected, but they are in many cases very good, and a spirit of enterprise and courage prevails in that institution.

TABLE 9.
BAGULEY SANATORIUM.

Males.

Year	No. of new cases	No. of re-admissions	Died in Sanatorium	Died elsewhere	Lost sight of	Known to be still living, Dec. 31st, 1922
1912	49	..	14	23	6	6
1913	329	17	65	163	65	36
1914	246	38	59	131	28	28
1915	276	46	77	132	36	31
1916	403	73	133	166	45	59
1917	401	76	90	128	64	119
1918	390	68	88	120	52	130
1919	445	225	79	90	88	188
1920	475	212	105	132	33	205
1921	349	196	82	85	25	157
1922	356	166	77	31	16	232
Total	3,719	1,117	869	1,201	458	1,191

Females.

Year	No. of new cases	No. of re-admissions	Died in Sanatorium	Died elsewhere	Lost sight of	Known to be still living, Dec. 31st, 1922
1912	20	..	3	10	7	..
1913	167	7	32	64	51	20
1914	98	5	17	37	26	18
1915	87	5	23	28	22	14
1916	262	16	66	114	40	42
1917	277	24	63	88	64	62
1918	226	44	69	79	22	56
1919	196	30	55	68	21	52
1920	166	48	50	51	16	49
1921	164	55	45	53	9	57
1922	198	50	39	26	2	131
Total	1,861	284	462	618	280	501

The following tables are to be read in conjunction with the tables showing the amount of assistance given in other recent years. They indicate a continuance of distress:—

The number of cases of Tuberculosis in which the income of the individual or family showed varying amounts of deficit under an assumed standard of living, and the number in which assistance was given to the individual or the family, or both, is shown in the following tables:—

TABLE 10.

TABLE SHOWING PARTICULARS OF DISTRESS IN CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1922. CLASSIFIED ACCORDING TO THE REQUIREMENTS OF THE FAMILY IN EXCESS OF THE INCOME. FOOD, CALCULATED ON THE ATWATER SCALE; HOUSEHOLD SUNDRIES ON MR. ROWNTREE'S SCALE. TAKING THE UNITS OF FOOD AND HOUSEHOLD SUNDRIES USED IN 1913 AS STANDARDS, VARIOUS AMOUNTS HAVE BEEN USED. IN 1922 THE AMOUNT ADDED WAS 125 PER CENT., REDUCED LATER TO 100, AND THEN TO 90 PER CENT.

PULMONARY CASES.

Conditions affecting Individual Cases	Shortage up to—in Shillings														Total
	—5/-	—10/-	—11/-	—12/-	—13/-	—14/-	—15/-	—16/-	—17/-	—18/-	—19/-	—20/-	—25/-+		
Living December 31st, 1922 ...	56	45	4	6	5	7	4	6	4	3	3	3	26	172	
Dead December 31st, 1922 ...	25	11	2	3	2	5	1	4	1	2	3	1	7	67	
Relief from Guardians ...	25	11	1	1	3	3	1	2	1	1	—	1	11	61	
Assistance from the £2,500 Grant (Family)	25	26	1	5	2	4	1	6	2	2	4	1	10	89	
Assistance from the £1,500 Grant (Individual)	16	13	3	1	1	—	1	3	1	—	1	—	6	46	

TABLE II.
NON-PULMONARY CASES.

Conditions affecting Individual Cases	Shortage up to—in Shillings													
	-5/-	-10/-	-11/-	-12/-	-13/-	-14/-	-15/-	-16/-	-17/-	-18/-	-19/-	-20/-	-25/-+	Total
Living December 31st, 1922 ...	19	17	5	3	3	1	5	—	2	2	—	1	7	65
Dead December 31st, 1922....	8	11	1	1	1	1	3	—	—	—	—	—	5	31
Relief from Guardians ...	11	16	—	—	1	—	2	—	—	—	—	—	3	33
Assistance from £2,500 ...	10	16	2	1	3	1	3	—	1	1	—	1	4	43
Assistance from £1,500	10	2	—	2	—	1	1	—	1	1	—	—	1	19

With reference to Tables 8 and 9 it should be noted that Corporation assistance can only be given in cases which do not fall into the category of destitution.

TABLE 12.
SOURCES OF PRIMARY NOTIFICATION OF NON-PULMONARY CASES FOR
THE YEARS 1918, 1919, 1920, 1921, AND 1922.

Source	1918	1919	1920	1921	1922
Crumpsall Hospital... ..	49	22	15	15	11
Withington Hospital	—	—	11	29	39
Booth Hall	45	33	43	60	35
Outside Poor Law	2	1	—	—	—
Royal Infirmary	111	58	95	95	69
Ancoats Hospital	57	34	31	27	45
Skin Hospital	35	32	46	66	37
St. Mary's Hospital	25	2	4	—	21
Northern Hospital	1	1	9	4	17
Jewish Hospital —	1	19	11	1	1
Pendlebury Hospital	8	5	2	3	4
Medical Mission	—	—	—	—	—
Hulme Dispensary	1	—	—	—	—
Chorlton-upon-Medlock Dispensary	—	—	—	—	—
Gartside Street Dispensary ...	66	19	25	63	36
Hardman Street Dispensary...	15	9	23	23	33
Bowdon Hospital	—	—	2	—	—
Asylums	6	2	8	7	2
Schools	5	3	37	31	38
Tuberculosis Office Staff ...	6	16	16	7	13
Army	14	2	—	1	3
Various Sources	17	8	11	13	21
Private Practitioners	234	168	148	131	180
	698	434	537	576	605

TABLE 13.

NOTIFICATIONS OF PULMONARY AND NON-PULMONARY TUBERCULOSIS
RECEIVED FROM SANITARY AREAS DURING 1922.

Statistical Divisions						Pulmonary	Non-Pulmonary	Totals
City of Manchester						1,456	605	2,061
I. Manchester Township						315	118	433
II. North Manchester						348	179	527
III. South Manchester						793	308	1,101
{	Ancoats	...	...	...	...	116	38	154
	Central	...	...	...	...	65	18	83
	St. George's	...	...	...	...	134	62	196
{	Cheetham	...	...	...	...	75	25	100
	Crumpsall	...	...	...	...	13	4	17
	Blackley	...	...	...	...	28	8	36
	Harpurhey	...	...	...	...	47	12	59
	Moston	...	...	...	...	36	20	56
	Newton	...	...	...	...	55	39	94
	Bradford	...	...	...	...	45	38	83
	Beswick	...	...	...	...	32	16	48
	Clayton	...	...	...	...	17	17	34
{	Ardwick	...	...	...	...	77	32	109
	Openshaw	...	...	...	...	67	15	82
	West Gorton	...	...	...	...	48	29	77
	Rusholme and Kirkmanshulme	...	...	...	...	67	28	95
	Chorlton-upon-Medlock	...	...	...	...	134	42	176
	Hulme	...	...	...	...	170	70	240
	Moss Side	...	...	...	...	61	19	80
	Withington	...	...	...	...	60	27	87
	Gorton	...	...	...	...	72	33	105
	Levenshulme	...	...	...	...	37	13	50

THE SENIOR TUBERCULOSIS OFFICER'S REPORT.

BY DR. D. P. SUTHERLAND.

During the year under review, as contrasted with 1921, the number of notifications of pulmonary tuberculosis has diminished by 155, and of surgical tuberculosis has increased by 29. The deaths from pulmonary tuberculosis numbered 947 as compared with 967 in 1921, and those from surgical tuberculosis 242 as compared with 252 in 1921. Comparison with previous years is shown in Table 4.

The problems connected with the tubercular infection of individuals and the relative resistance shown to the disease remain unsolved. Some, and those not necessarily the most frail, succumb to an attack, whereas others resist and recover. The necessary conditions for resistance are probably complex and numerous. Certain of these conditions have been investigated during the past year by making detailed enquiry into some factors associated with the survival of patients who had been seriously infected with tuberculosis of the lungs. For this purpose, 49 consecutive cases, male and female, for whom we had complete clinical and other records, have been taken, in whom arrest of the disease occurred in the years 1912-1918. All these cases were originally suffering from active disease, and in all of them tubercle bacilli were found in the sputum. After arrest these cases have survived for periods of 3-9 years up to the present time, and certain conditions preponderated amongst these cases to a degree not found amongst the general tuberculous population. To establish some of these facts it was necessary to make an analysis of some hundreds of consecutive tubercular cases, all sputum positive, in order to have a basis of comparison. These "control" cases are taken simply as they come in the records.

Departures from the control cases may help to throw some light upon the circumstances with which successful resistance to tuberculosis is associated, a line of enquiry that still requires a great deal of research.

It is only possible within the limits of an annual report to give the shortest resumé of the findings, as follows. These relate to the survivors.

(1) *Association with Family Tuberculosis.*

Thirty-six per cent. of the males and 30 per cent. of the females had a family history of tubercle. The control figures were 22 per cent. males and 30 per cent. females.

(2) *Income Level of Family.*

Family circumstances were financially adequate in the great majority of all cases. The association of poverty with a high tubercular death-rate does not require elaboration here.

(3) *Nature of Work.*

The majority of cases began and ended in occupations that were dusty, crowded, and conducted indoors. A slight improvement in the conditions of work, more marked in the cases of women, occurred after treatment, advice, and education. Unsatisfactory conditions in themselves did not, however, entirely govern the fates of patients.

(4) *District Death-rates.*

The death-rates of the districts from which these survivors came were worse than normal in the case of women and slightly better in the case of men.

(5) *Early Symptoms.*

The most constant primary symptom was cough in the case of men, followed by weakness and wasting. This sequence was reversed in women. Hæmorrhage had a high rate of 46 per cent. in men as an initial symptom ; it occurred much more rarely with women. Pleurisy was rare, bearing out one's clinical experience of this condition as apt to be a serious one.

(6) *Site of Disease.*

The situation of the lesion in the lung was apical in all but one case, and the right side was invaded alone in over 60 per cent. of the cases. It is of interest to note that in an analysis of deaths the cases where the first lesion was found to be in the right lung amounted to 20 per cent. Amongst all cases, irrespective of death or survival, the figure for right lung lesions is 34 per cent.

(7) *Period of Treatment.*

Two-thirds of the men had two years' treatment before arrest, and others had three, four, and five years or more. The women had longer treatment before arrest, three-fifths of them requiring five years or more. The main part of the treatment was of necessity carried out at home, though practically all had received Sanatorium treatment.

(8) *Reaction to Treatment.*

The results of the first six months' treatment give some indication of value as to the ultimate prognosis. The great majority showed improvement in this period, and this was associated with a gain in weight of an average amount of 10·3 pounds in men and 8·5 pounds in women. Amongst 150 deaths in patients who survived on the average about two years after notification, their gain in weight during the first six months' treatment was approximately three pounds in the case of men and slightly over three pounds in the case of women. This is a striking difference. Any appreciably shorter period than six months is not of real value for estimating the probable prognosis, and the immediate reaction to treatment bears no constant relationship to ultimate fate.

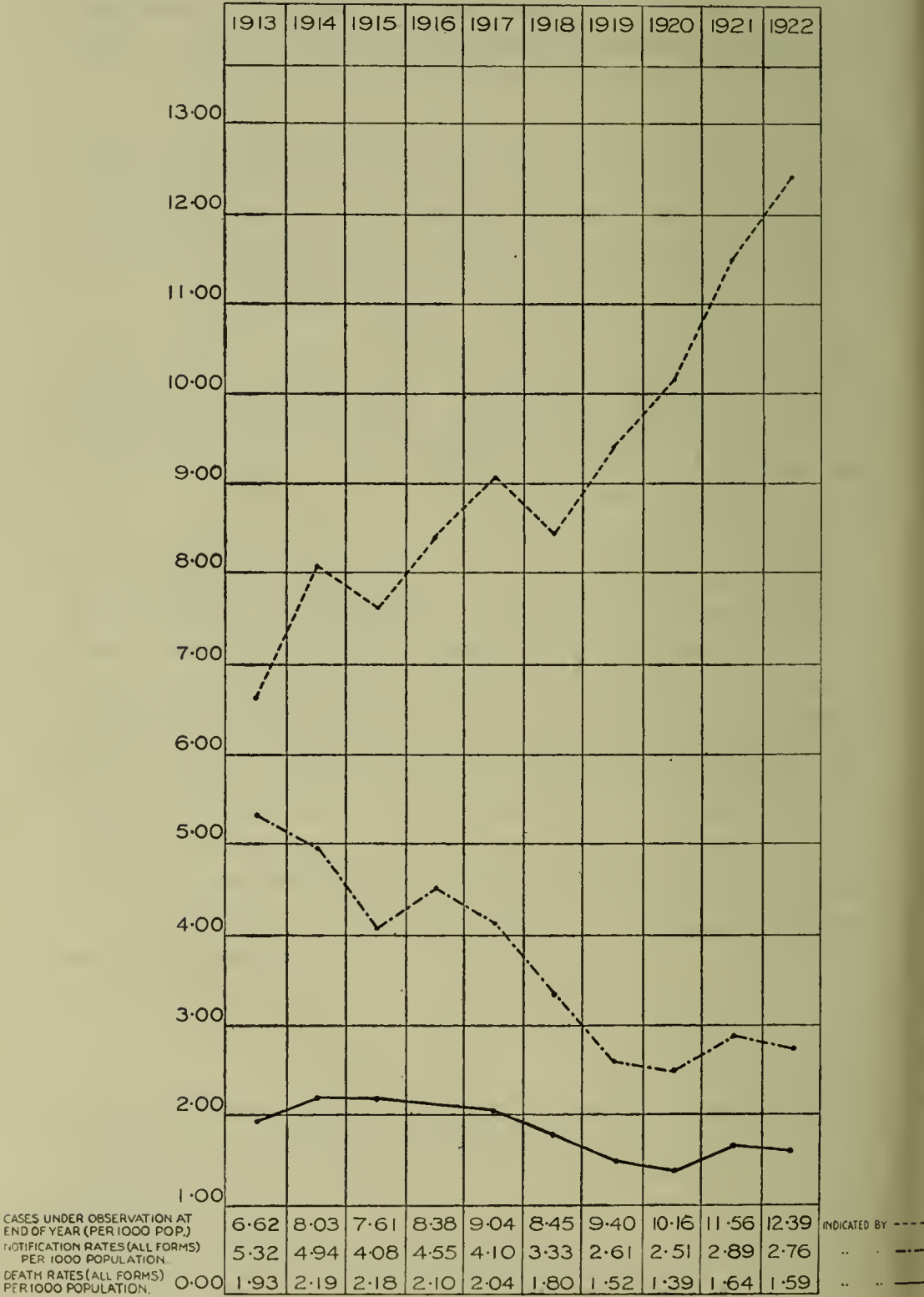
(9) *Type of Patient.*

The types of case were practically all of the helpful, willing class, again emphasising the observation that the patient's whole-hearted co-operation in his treatment is to his very material benefit.

(10) *Age Groups.*

The age at which arrest occurred was, generally speaking, earlier in the case of women than men. 90 per cent. of the former and 56 per cent. of the latter arrested before age 36. The arrest rate was highest in women at the ages of the greatest death-rate. In men it was highest at the same ages, but in this case the male death-rate is lowest at these ages. Finally, amongst the class of patients to which these figures apply, permanent arrest is more likely to occur amongst men than women.

The following curves show very graphically the position in regard to tuberculosis from 1913 to the end of 1922:—



It will be seen that the number of cases passing through the office records each year has increased steadily, until it reaches the figures of 9,258 for the past year. The measure of our knowledge of the existence of cases in Manchester, and the work entailed in following them up, may be estimated from this figure.

It is becoming evident that to keep in close touch with all these cases, which is one of the main functions of a tuberculosis department, an extension of the personnel will be necessary. Unless continuous records can be kept, a large part of the expenditure upon treatment and preventive measures will be wasted, and the care work crippled.

Furthermore, although these figures show the known survival rates to be increasing with fuller development of the work, they also emphasise the potential danger from infection or breakdown under adverse conditions.

Although surviving in apparently greater numbers, immunity is not necessarily co-existent, and the balance between resistance and infection is not yet steady.

Much of the work involved in providing for treatment of these cases is ultimately rendered useless by conditions outside the control of the department. The patients may return to houses quite unsuited to the proper treatment of a disease like tuberculosis. Overcrowding continues to a degree that makes isolation often impossible, and makes the probability of the spread of disease very great. Conditions of work are often unsatisfactory, and the means of transport to and from work are another source of danger.

The absence of provision for treatment of children should again be referred to.

The customary tables and statistics are given in the following pages.

Special visits to the number of 10,111 have been paid by the Tuberculosis Nurses and 1,326 visits by the Clinical Nurse who attends to domiciliary patients requiring surgical dressings and nursing care.

Insured cases applying for treatment :—

1914 .. { 730 Males.
321 Females.

1915 .. { 572 Males.
315 Females.

1916 .. { 747 Males.
316 Females.

1917 .. { 728 Males.
359 Females.

1918 .. { 642 Males.
261 Females.

1919 .. { 630 Males.
255 Females.

1920 .. { 645 Males.
250 Females.

1921 .. { 615 Males.
255 Females.

1922 .. { 543 Males.
265 Females.

Cases of discharged soldiers referred for treatment—327.

Number of insured patients who had so far recovered that no active signs of disease were found—313.

Recoveries amongst uninsured cases—349.

Contacts examined at their homes and at the Dispensary—526 ; of these definite signs of tuberculosis were found in 41, and in 118 further observation was required, as they were suspicious cases of tuberculosis.

Grants of food were made in 2,991 instances to 754 families, and 108 grants of clothing were supplied to 85 patients in Hospital and Sanatorium to enable them to derive full benefit from treatment.

Bedding, bedsteads, and cots, together with nursing appliances, have also been loaned in necessitous cases to secure isolation and adequate nursing at home.

TABLE A.

SUMMARY OF PRIMARY EXAMINATIONS MADE BY THE SENIOR TUBERCULOSIS OFFICER AND ASSISTANT TUBERCULOSIS OFFICER IN 1922.

	Reason for Examination		Occupational Condition at Examination	Diagnosis										Recommendations made																		
	Treatment	Claimed Recovery		Diagnosis	Contacts	Pulmonary Tuberculosis			Tuberculosis of							Delamere and Abergele	Baguley	Hardman Street Dispensary	Union	Other Hospitals	Private Practitioners	Observation										
Males ...	127	12	230	28	Working (or at School)	237	Not Working	31	64	48	Larynx	Bones and Joints	Glands	Abdomen	Other Organs	Doubtful Tuberculosis	Bronchitis	Heart Lesions	Other Diseases	No evidence of Tuberculosis	Recovery	No Disease										
Females	100	18	70	35	122	101		21	29	21	2	11	16	2	25	43	19	3	32	39	16	20	10	40	8	2	54	46	27			
Children	129	42	46	97	169	145		6	5	6	0	33	55	12	45	53	28	1	38	71	32	52	14	0	21	13	108	25	49			
Totals ...																																
				934			934			* 1125										934						934						
* Total of "diseases" as distinct from total cases examined, i.e., several patients had more than one form of disease present.																																

TABLE B.—RESULT OF EXAMINATION OF CASES SENT FOR DIAGNOSIS, 1922.

	Pulmonary Tuberculosis			Tuberculosis of					No evidence of Tuberculosis	Bronchitis	Heart Lesions	Other Diseases
	Stage I.	Stage II.	Stage III.	Larynx	Bones and Joints	Glands	Abdomen	Other Organs				
Males ..	16	35	17	4	1	3	..	1	100	57	2	43
Females ..	11	6	3	1	1	3	..	2	16	12	2	24
Children ..	2	2	2	..	1	5	..	1	15	9	1	7

TABLE C.—RESULT OF EXAMINATION OF CONTACTS.

Males ..	2	1	1	..	..	..	..	..	5	16	1	6
Females ..	..	1	..	..	..	1	..	..	15	14	3	6
Children ..	..	..	1	..	..	4	1	1	30	32	12	26

TABLE D.—DISPENSARY RETURN, 1922.

Number of persons, including Contacts, who were examined for the first time during the period from January 1st to December 31st, 1922, at or in connection with the Dispensary or Visiting Station, and were	Total number examined				Number of persons diagnosed to be suffering from Tuberculosis who were treated or supervised at or in connection with the Dispensary or Visiting Station during the period from January 1st to December 31st, 1922				Number of persons who were under treatment, supervision, or observation at or in connection with the Dispensary or Visiting Station on December 31st, 1922	
	Diagnosed as suffering from Tuberculosis	Diagnosed as <i>not</i> suffering from Tuberculosis	Undiagnosed and remaining under observation	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	
1083	1292	603	724	2254	862	105	47	510		

TABLE E.—INSURED CASES TREATED IN 1922.

Residential	.. .. .	1,230
Dispensary	.. .. .	105
Domiciliary	.. .. .	2,411
Total	.. .. .	<u>3,746</u>

ANALYSIS OF CASES TREATED.

TABLE I.—*Residential (Insured).*

INSTITUTION	Total Cases Treated		Discharged from Institutions		Died	* Residential Treatment discontinued in other cases	Still under Residential Treatment on 1st 1923
	Males	Females	Improved	Without Improvement			
	(1)		(2)	(3)	(4)	(5)	(6)
<i>Pulmonary</i>							
Baguley	588	208	220	81	110	4	17
			75	35	36	1	6
Crossley	148	92	87	16	2	8	3
			54	11	—	2	2
Abergele	97	22	57	8	—	2	3
			14	2	—	—	—
Meathop	12	—	10	1	1	—	—
			—	—	—	—	—
Total Pulmonary	845	322	517	154	149	17	
<i>Non-Pulmonary</i>							
Manchester Royal Infirmary	27	16	14	6	3	2	
			13	1	—	—	—
Skin Hospital	5	6	5	—	—	—	—
			5	—	—	—	—
Ancoats Hospital	6	3	5	1	—	—	—
			3	—	—	—	—
Total Non-Pulmonary	38	25	45	8	3	2	
TOTAL—ALL FORMS	883	347	562	162	152	19	33

* The figures in column (5) relate to cases as to the progress of which no definite report available for various reasons—e.g., the withdrawal from the Institution of the insured persons themselves before the expiration of the period for which they were nominated for the treatment.

In addition to the above cases, 64 ex-service men have been admitted to the East Lancashire Training Colony, Barrowmore Hall, for treatment combined with training.

TABLE II.—*Residential (Uninsured).*

INSTITUTION	Total Cases Treated			Discharged from Institutions		Died	* Residential Treatment discontinued in other cases	Still under Residential Treatment on 1st Jan., 1923
	Males	Females	Children	Improved	Without Improvement			
		(1)		(2)	(3)	(4)	(5)	(6)
<i>Pulmonary</i>								
... ..	110	120	—	46 44	11 22	19 25	2 4	32 25
... ..	33	38	—	17 18	4 5	— —	6 3	6 12
... ..	16	3	20	9 4 8	1 — 2	— — —	— — —	5 4 10
... ..	1	—	—	1 — —	— — —	— — —	— — —	— — —
Total Pulmonary...	160	166	20	147	45	44	15	95
<i>Non-Pulmonary</i>								
Manchester Royal Infirmary	4	8	18	4 6 17	— 1 —	— — —	— 1 —	— — 1
Hospital	3	3	14	3 3 14	— — —	— — —	— — —	— — —
Boats Hospital	1	2	9	1 2 7	— — 2	— — —	— — —	— — —
Total Non-Pulmonary	8	13	41	57	3	—	1	1
ALL—ALL FORMS...	168	179	61	204	48	44	16	96

* The figures in column (5) relate to cases of which no definite report is available for various reasons—*e.g.*, the withdrawal from the Institution of the persons themselves before the expiration of the period for which they were nominated for the treatment.

TABLE III.—*Dispensary (Insured).*

	Total cases treated	Discharged from Institution		Died	* Treatment discontinued in other cases	Still under treatment on 1st January, 1923
		Improved	Without Improvement			
	(1)	(2)	(3)	(4)	(5)	(6)
Men	75	13	19	1	8	34
Women	30	9	5	..	3	13
Totals.. ..	105	22	24	1	11	47

* See footnote to table I.

TABLE IV.—*Dispensary (Uninsured).*

	Total cases treated	Discharged from Institution		Died	Still under treatment on 1st January, 1923
		Improved	Without Improvement		
	(1)	(2)	(3)	(4)	(5)
Men	94	29	31	...	34
Women	331	96	72	...	163
Children (under 16)... ..	437	114	52	...	271
Totals	862	239	155	...	468

Under the Corporation scheme patients suffering from surgical tuberculosis have received treatment at the Manchester Royal Infirmary and Ancoats Hospital, and cases of tuberculosis of the skin have been treated at the Skin Hospital.

The types of case are summarised below.

Bones and Joints	... ..	51
Glands	... ..	32
Genito-Urinary Tract	... ..	3
Abdomen	... ..	10
Lupus Vulgaris	... ..	209
Toxi-Tuberculids	... ..	1
Bazins Disease	... ..	6
Tuberculous Ulceration of Skin...	...	16
Tenosynovitis	... ..	1

TABLES SHOWING AFTER HISTORY OF ARRESTED CASES.

1913.

*No Tubercle Bacilli Found.**Tubercle Bacilli Found.*

Stage	Sex	Number of Cases taken off S.B.	Number living at end of 1922	Lost sight of	Died	Sex	Number of Cases taken off S.B.	Number living at end of 1922	Lost sight of	Died
I.	M	1	1	—	—	M	—	—	—	—
	F	5	3	2	—	F	—	—	—	—
II.	M	2	1	—	1	M	1	1	—	—
	F	—	—	—	—	F	—	—	—	—
III.	M	—	—	—	—	M	—	—	—	—
	F	—	—	—	—	F	—	—	—	—
	M & F	8	5	2	1	M & F	1	1	—	—

1914.

I.	M	14	7	3	4	M	4	3	1	—
	F	13	10	2	1	F	2	1	1	—
II.	M	3	3	—	—	M	3	2	—	1
	F	2	2	—	—	F	—	—	—	—
III.	M	2	—	1	1	M	1	—	1	—
	F	—	—	—	—	F	1	—	—	1
	M & F	34	22	6	6	M & F	11	6	3	2

1915.

I.	M	20	11	7	2	M	14	8	—	6
	F	19	11	4	4	F	3	3	—	—
II.	M	16	12	3	1	M	2	1	—	1
	F	6	5	1	—	F	2	2	—	—
III.	M	1	1	—	—	M	4	3	—	1
	F	1	1	—	—	F	—	—	—	—
	M & F	63	41	15	7	M & F	25	17	—	8

1916.

I.	M	16	10	3	3	M	10	6	—	4
	F	15	12	3	—	F	2	—	2	—
II.	M	4	1	2	1	M	6	2	2	2
	F	7	4	2	1	F	—	—	—	—
III.	M	1	1	—	—	M	1	—	—	1
	F	1	1	—	—	F	1	—	—	1
	M & F	44	29	10	5	M & F	20	8	4	8

TABLES SHOWING AFTER HISTORY OF ARRESTED CASES—continued

1917.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases taken off S.B.	Number living at end of 1922	Lost sight of	Died	Sex	Number of Cases taken off S.B.	Number living at end of 1922	Lost sight of	Died
I.	M	19	16	3	—	M	9	8	—	1
	F	11	8	2	1	F	3	1	—	2
II.	M	15	11	2	2	M	4	1	—	3
	F	7	6	1	—	F	1	1	—	—
III.	M	2	2	—	—	M	3	1	—	2
	F	—	—	—	—	F	—	—	—	—
	M & F	54	43	8	3	M & F	20	12	—	8

1918.

I.	M	18	12	3	3	M	6	5	—	1
	F	15	10	2	3	F	5	4	—	1
II.	M	14	12	—	2	M	7	5	—	2
	F	5	4	1	—	F	—	—	—	—
III.	M	3	1	2	—	M	1	1	—	—
	F	1	1	—	—	F	2	2	—	—
	M & F	56	40	8	8	M & F	21	17	—	4

1919.

I.	M	25	23	2	—	M	7	6	—	1
	F	10	8	2	—	F	3	3	—	—
II.	M	14	10	2	2	M	12	11	—	1
	F	11	8	2	1	F	10	9	—	1
III.	M	4	3	—	1	M	3	1	2	—
	F	1	1	—	—	F	1	—	—	1
	M & F	65	53	8	4	M & F	36	30	2	4

1920.

I.	M	22	17	1	4	M	14	12	—	2
	F	7	7	—	—	F	4	4	—	—
II.	M	20	17	1	2	M	7	6	—	1
	F	7	7	—	—	F	3	3	—	—
III.	M	2	2	—	—	M	2	2	—	—
	F	1	1	—	—	F	2	2	—	—
	M & F	59	51	2	6	M & F	32	29	—	3

TABLES SHOWING AFTER HISTORY OF ARRESTED CASES—continued

1921.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases taken off S.B.	Number living at end of 1922	Lost sight of	Died	Sex	Number of Cases taken off S.B.	Number living at end of 1922	Lost sight of	Died
I.	M	27	21	5	1	M	18	18	—	—
	F	20	17	3	—	F	3	3	—	—
II.	M	17	16	—	1	M	17	15	1	1
	F	9	7	2	—	F	3	3	—	—
III.	M	4	4	—	—	M	1	1	—	—
	F	3	3	—	—	F	—	—	—	—
	M & F	80	68	10	2	M & F	42	40	1	1

D. P. SUTHERLAND.

BAGULEY SANATORIUM.

REPORT FOR THE YEAR ENDING DECEMBER 31ST, 1922.

BY DR. H. G. TRAYER.

The number of beds was increased on July 31st, 1922, to 333.

The number of patients admitted was 817, as compared with 741 in the previous year, the daily average being 313.

The table below gives the number of patients in hospital on the last day of each month of the years 1920, 1921, 1922.

	1920	1921	1922	Difference from previous year
January	289	310	311	+ 1
February	302	311	309	— 2
March	302	310	311	+ 1
April	301	314	313	— 1
May	288	308	310	+ 2
June	295	313	319	+ 6
July	303	302	320	+ 18
August	309	305	318	+ 13
September	304	307	304	— 3
October	306	314	324	+ 10
November	303	301	314	+ 13
December	281	291	298	+ 7

The increase is not due so much to the greater number of admissions, but to the fact that the patients are staying for a longer period, and that more beds are available.

On December 31st, 1922, there were 66 patients who had been in the institution for a longer period than one year.

30	had been in-patient for	1-2 years.
18	„ „ „	2-3 „
5	„ „ „	3-4 „
5	„ „ „	4-5 „
9	„ „ „	over 5 years.

Statistics.

Patients in hospital, January 1st, 1922	... ..	291
Patients admitted during the year	... ..	817*
Total patients treated	... ..	1,108
Number of patients discharged	... ..	617
Number of deaths	... ..	193
Patients remaining in hospital, December 31st, 1922		291

* Includes re-admissions.

On December 31st, 1921, there were 2 patients from the Bucklow R.D.C., 12 patients were admitted during the year 1922, 3 were discharged improved, 3 died, and 8 remained in Hospital on December 31st, 1922.

As in previous years, all discharges have been doubly classified according to the Turban Gerhardt and the International method.

When a patient has been re-admitted he is counted as one case only in the tables relating to discharges.

Females—Ages 15-24.

The number of patients discharged during the year was 74.

CLASSIFICATION OF DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	1	1	..	1	..	..	Improved ..40
2	..	1	1	13	1	..	Stationary.. 13
3	..	..	..	16	26	15	Worse .. 11

Six patients showed no evidence of active tuberculosis.

One patient had non-pulmonary tuberculosis.

One patient left before diagnosis was complete.

One patient was not examined.

Thirty-seven patients were admitted with a positive sputum, of which four were negative on discharge.

Females—Ages 25-34.

The number of patients discharged during the year was 49.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	1	1	..	2	..	..	Improved ..35
2	..	1	1	5	2	..	Stationary .. 9
3	..	..	..	12	17	4	Worse 2

Two patients showed no evidence of active tuberculosis.

One patient left before diagnosis was complete.

Twenty-seven patients were admitted with a positive sputum, of which six were negative on discharge.

Females—Ages 35-44.

The number of patients discharged during the year was 33.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	..	..	..	..	..	..	Improved ..25
2	..	2	..	4	..	..	Stationary .. 7
3	..	..	..	7	18	1	Worse 0

One patient showed no evidence of active tuberculosis.

Seventeen patients were admitted with a positive sputum, of which three were negative on discharge.

Females—Ages 45 and over.

The number of patients discharged during the year was 29.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	..	..	..	..	..	..	Improved ..16
2	..	..	..	6	..	..	Stationary ..11
3	..	..	..	4	16	2	Worse 1

One patient showed no evidence of active tuberculosis.

Sixteen patients were admitted with a positive sputum, of which seven were negative on discharge.

Females.

Complications occurring amongst 171 cases of pulmonary tuberculosis: —

Tuberculous laryngitis	8
„ enteritis	1
„ adenitis	9
Spinal caries	2
Tuberculous bone (other than spine)	4
Mitral disease	2
Rheumatoid arthritis	2
Chronic mastoiditis	1
Exophthalmic goitre	1
Nephritis	1
Biliary calculi... ..	1
—	
Total	32

Males—Ages 15-24.

The number of patients discharged during the year was 61.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	..	2	..	..	..	..	Improved ..39
2	..	..	..	9	..	..	Stationary ..11
3	..	..	..	18	18	10	Worse 7

Two patients had non-pulmonary tuberculosis.

One patient showed no signs of active tuberculosis.

One patient left before diagnosis was complete.

Thirty-nine patients were admitted with a positive sputum, of which four were negative on discharge.

Males—Ages 25-34.

The number of patients discharged during the year was 83.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	..	..	1	..	..	..	Improved 61
2	..	..	1	12	3	..	Stationary 13
3	..	..	..	20	38	5	Worse .. 6

One patient showed no signs of active tuberculosis.

One patient had non-pulmonary tuberculosis.

One patient left before diagnosis was complete.

Forty-four patients were admitted with a positive sputum, of which five were negative on discharge.

Males—Ages 35-44.

The number of patients discharged during the year was 113.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	..	2	1	..	..	..	Improved ..81
2	..	..	..	11	7	..	Stationary ..17
3	..	..	1	29	52	6	Worse 11

Three patients showed no signs of active tuberculosis.

One patient left before diagnosis was complete.

Sixty-eight patients were admitted with a positive sputum, of which five were negative on discharge.

Males—Ages 45 and over.

The number of patients discharged during the year was 106.

CLASSIFICATION ON DISCHARGE.

Turban Gerhardt	International						
	1	2	3	4	5	6	
1	..	1	1	..	..	..	Improved ..66
2	..	..	..	10	3	..	Stationary ..21
3	..	..	..	23	50	12	Worse 13

Six patients showed no active signs of pulmonary tuberculosis.

Sixty-five patients were admitted with a positive sputum, of which nine were negative on discharge.

*Males.**Complications amongst 323 cases of pulmonary tuberculosis :—*

Tuberculous laryngitis	14
„ disease of bone (other than spine) ...	6
„ adenitis	2
„ pharyngitis	1
„ rhinitis	1
„ enteritis	1
„ epididymitis	3
Spontaneous pneumothorax	1
Bronchiectasis	4
Mitral disease	7
Aortic regurgitation	1
Mediastinal tumour	1
Otitis media	2
Gastric ulcer	1
Duodenal ulcer	1
Gastroptosis	1
Dysentery	1
Nephritis	1
Exophthalmic goitre	1
Malaria	1
Syphilis	2
Total	57

The number of deaths during the year was 193, made up of 63 females and 130 males. This is equal to a death-rate of 17·42 per cent. of the total patients treated.

Complications in Fatal Cases.

Complication	Number Female	Number Male
Hæmoptysis	7	3
Tuberculous laryngitis	41	29
„ adenitis	1	...
„ meningitis	...	5
„ enteritis	3	5
„ pericarditis	...	1
„ kidney	...	1
„ bone	1	2
„ spine	1	2
Pyo pneumothorax	1	1
Hydro „	...	2
Ischio rectal abscess	...	3
Mitral incompetence	2	1
„ stenosis	...	1
Orchitis... ..	...	2
Nephritis	1	2
Adherent pericarditis... ..	...	1
Bronchiectasis	...	1
Epithelioma of lung	...	1
Malaria	...	1
Syphilis	...	1
Total	21	65
Uncomplicated	42	65

One patient had epithelioma of lung.

Ten deaths were caused by hæmoptysis.

One patient died from cerebral hæmorrhage and T.B.

Laboratory.

Number of specimens of sputum examined:—

Ziel-Nielsen method.—Number of examinations 1,785

Positive 905

Negative 880

Antiformin method.—Number of examinations 309

Positive 85

Negative 224

Albumen reactions.—Number of examinations 131

Positive 106

Negative 25

Other examinations.

Special examinations of urine	11
Pleural effusion	2
Cerebro-spinal fluid	1
Blood	1
Pus... ..	2
Number of autopsies	63

Dental Report.

Extractions	180
Fillings	9
Scalings and dressings	23
Dentures	15
Repairs to dentures	9
Total number of persons	<u>236</u>

It will be noticed that the number of beds occupied during the year has been high, partly no doubt due to obvious economic causes.

Patients.

I feel that if it were possible to separate more widely the advanced bed-ridden cases from the middle and early ones, the formers' last days might be less bound by the restrictions that are of so much importance in the treatment and control of the latter.

The new "Day Room" for men was opened early in the year, and has proved of great value in the comfort of those patients able to enjoy its amenities.

There appears to be an increase in the number of youths admitted, and if this persists it will be necessary to provide separate indoor recreational facilities for them.

The new "Day Room" for females is much appreciated, though the heating by anthracite stoves is not entirely satisfactory.

The new Work Room is not yet fully equipped, but the Institutional Work-shop will make the necessary articles by next winter. At present the old Day Room is used for classes and as a workroom.

Occupational Treatment.

The Workshops still maintain their position as the most important unit in occupational treatment. I am of opinion that it is essential that there should be a skilled joiner on the staff, who could act usually in an advisory, and, if necessary, in an instructional capacity to the Carpentry section.

Graded work in the grounds, gardens, and greenhouses is carried out by male and female patients, though the number of patients attaining to the highest grade is not up to the average.

Table of Grades.

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Totals
12	30	47	21	40	150

Handicrafts have consisted of rug making, hand weaving in wool and silk, machine knitting, and macrame work. I take this opportunity of expressing my thanks to the Matron, Sisters Lock and Higley, and the Head Seamstress for having rendered much valuable help. It is difficult to stimulate interest in the average patient, and even when enthusiasm is aroused to maintain it until a practical working knowledge is attained, and the appointment of a Vocational Sister should be seriously considered, whose duty it would be to teach, collectively and individually, useful handicrafts.

Lectures have been given regularly to all male patients on the elementary hygiene of the tuberculous.

Special Methods of Treatment.

Artificial pneumothorax is a recognised method for suitable cases. The absence of an X-Ray installation in the Sanatorium is a very appreciable handicap, especially when this method might be exhibited with great benefit in acutely ill patients. As time must of necessity pass before any real value can be attached to results, a full report will appear in due course.

Calcium Salts.—The colloidal salts have been extensively used for pulmonary cases; both orally and hypodermically, without much benefit. In cases of tubercular enteritis, when administered by the mouth, it usually alleviates symptoms for a time at least, and one case has been completely arrested.

Hypertonic Saline (5 per cent. to 10 per cent.) is of great value in hæmoptysis.

Trimethenal Allylic Carbide has proved a satisfactory expectorant in certain cases, beyond that there is nothing to note, except that as an inhalant it appears useful.

Immunizing Tuberculosis Vaccine.—Tried in four advanced cases; one much improved, one showed temporary improvement, two no improvement.

Splengers I.K. appears to be of value in reducing pyrexia of long standing, but its effect is by no means constant, and not of sufficient value to use as a routine.

Tuberculo-antigen-Scheillin has only been in use a short time on a limited scale; large supplies are becoming available, and an extensive trial is to be made.

Inoculation with Pleural Fluid undoubtedly increases rate of absorption of pleural effusions, and therefore lessens risk of impairment of lung function.

Staff.

The adaptation of Ward 1 as a Sister's Home was completed in the summer, and provides accommodation for the Assistant Matron and six Nursing Sisters.

The hours of duty have been readjusted with much benefit and no impairment of efficiency.

Entertainments.

On behalf of the patients and staff I wish to express our grateful thanks to Messrs. Gaumont Limited for the weekly supply of films during the winter months.

The weekly concerts have been much appreciated, and our thanks are due to the many professionals and amateurs who have so readily given their services.

The fortnightly whist drives have been very popular.

In conclusion, I wish to express my thanks to all members of the staff for the loyal and willing manner in which their duties have been carried out.

H. G. TRAYER.

Observation Beds.

The tables attached show the results of the examination of patients tested with tuberculin in 1919, 1920, 1921, 1922. In each case the after-history column has been very kindly completed by the Senior Tuberculosis Officer.

Tested 1919	Condition in February, 1923
No reaction to tuberculin 10	No evidence of active tubercule .. 6 Probably not active tuberculosis... 1 Not traced 3
Doubtful reaction 1	Dead 1
Very doubtful reaction 1	Probably non-tubercular silicosis... 1
Positive reaction 3	Positive tuberculosis 1 With signs not active 1 Dead 1

Tested 1920	Condition in February, 1923
No reaction to tuberculin 11	No evidence of active tuberculosis 4
	Probably not active tubercle ... 3
	Dead 2
	Not traced 2
Doubtful reaction 1	Not active tuberculosis 1
Positive reaction 1	Left the district 1

Tested 1921	Condition in February, 1923
No reaction to tuberculin 5	No evidence of active tuberculosis 3
	Probably not active tuberculosis ... 1
	Dead 1
Doubtful reaction 2	No active tuberculosis 1
	No evidence of active tuberculosis 1

Tested 1922	Condition in February, 1923
No reaction to tuberculin 10	No evidence of active tuberculosis 3
	Dead 4
	Not traced 3
Doubtful reaction 3	No evidence of active tuberculosis 2
	Probably not active tuberculosis... 1

TABLE I.—SHOWING THE APPLICATION OF TUBERCULIN TO THE DIAGNOSIS OF DOUBTFUL CASES IN 1919.

NOS.	PHYSICAL SIGNS	TUBERCULIN	SPUTUM	REACTION	DIAGNOSIS	AFTER HISTORY, 1923
1. Age 26	Impaired percussion note right apex. Faint inspiratory crepitations	.001 } .005 } June, .005 } 1919 .01 } .01 }	None	Negative	Nasal obstruction. No evidence of active tubercle	1. Condition improved. Fit for work, 50 per cent.
2. Age 24	Impaired percussion note right apex. Prolonged expiratory murmur	.001 } Nov., .005 } Dec., .01 } 1919	None	Negative	No evidence of active tubercle	2. At work. Improving.
3. Age 19	Impaired percussion note right apex.	.001 } .005 } Sept., .01 } 1919 .01 }	None	Negative	No evidence of active tubercle	3. Condition stationary. No signs of active disease.
4. Age 18	Impaired percussion note over both apices. Prolonged expiratory murmur over right upper lobe	.001 } Nov., .005 } 1919	None	Negative	No evidence of active tubercle	4. Improving, full work.
5. Age 30	Impaired percussion note over right apex. Breath sounds weak in right upper lobe. Defective basal expansion, mitral stenosis	.001 Nov., 1919	Sputum suspicious	Temperature never higher than 98·4, but irregular	?	5. Condition improving. Fit for work, 75 per cent.
6. Age 32	Slight impairment of percussion note at the left base. Prolonged expiration left base	.001 } June, .005 } 1919 .005 }	Negative	General reaction focal pleuritic rub, right base	Tuberculous pleurisy right base ? L	6. Condition deteriorating. Physical signs indefinite. Recommended for readmission to Baguley.
7. Age 25	Scar and small sinus from G.S.W. chest below angle of left scapula. Percussion note impaired over left upper lobe. Fine inspiratory creps over both apices behind. Moist râles at angle of left scapula	.001 } May, .003 } 1919 .005 }	? + 31-5-19	Nil.	Doubtful	7. Stated to have removed to New York.
8. Age 39	Physical signs of bronchitis and emphysema	.001 18-8-19	Negative on three occasions until 12-11-20, 86 days after reaction	General reaction, local reaction, focal reaction in left lower lobe at the angle of scapula	Bronchitis and emphysema T.B. focus in left lower lobe	8. Died in Baguley, 27th February, 1920.
9. Age 26	Bronchitis, both bases	.001 July, 1919	Negative on six occasions	Nil.	Chronic bronchitis, Nasal obstruction. Laryngitis	9. Condition stationary. Able to work.
10. Age 34	Broncho-vesicular breathing below angle of right scapula. Defective expansion at both apices	.001 } June, .003 } July, .005 } 1919	Negative	Focal pleuritic rub. rt. base. Increase in sputum No general reaction	Positive	10. Working. Sputum still negative and physical signs indefinite.
11. Age 26	Impaired percussion note right apex. Diminished basal expansion right. Doubtful creps at extreme apex of right lung	.001 } Sept., .005 } 1919	Negative	None	Post nasal catarrh	11. Removed to Australia.
12. Age 32	Slight impairment of percussion note right apex. Doubtful occasional crepitations extreme apex	.001 } Nov., .005 } Dec., .01 } 1919	Negative	None	Not T.	12. Condition stationary. No signs of activity.
13. Age 34	Slight impairment of percussion note both apices. Some congestive crepitations at both bases	.001 } May, .005 } 1919 .01 }	None	None	Not T.	13. Removed from Manchester. Disease stated to be active. Sputum negative.
14. Age 40	Fibrosis right upper lobe. Impaired percussion note. Tubular breathing occasional fine râles	.001 Nov., 1919	None	Local reaction, slight pain in right side. No general reaction	Probable silicosis right lung. Left hospital prematurely	14. Patient working. No evidence of active tuberculosis.
15.	Bronchitis, emphysema, alcoholic gastritis	.001 Dec., 1919	Negative	Doubtful reaction. Temperature rose 6°. No local or focal symptoms	Left prematurely before diagnosis complete	15. Died in January from bronchitis and cardiac failure.

TABLE II.—SHOWING THE APPLICATION OF TUBERCULIN TO THE DIAGNOSIS OF DOUBTFUL CASES IN 1920.

110B

NOS.	PHYSICAL SIGNS	TUBERCULIN	SPUTUM	REACTION	DIAGNOSIS	AFTER HISTORY, 1923
1. Age 30	Impaired note left apex. Faint inspiratory crepitations, rather transient in type	.0001 } .0005 } Jan., .001 } 1920	Negative	None	Not active	1. Condition stationary. No evidence of active disease.
2. Age 26	Impaired percussion note. Transient crepitations right apex	.001 } .005 } Feb., .01 } 1920	Negative	None	No evidence of active tuberculosis	2. T.B. positive. Died in Baguley, 2nd November, 1922.
3. Age 33	Impaired note left apex. Occasional scattered rhonchi generally. Post tussive creps left base. Infection of left vocal cord	.001 } .005 } March, .01 } 1920	Negative	Creps appearing after .01 cc. O.T. in left lower lobe. No general reaction	Doubtful	3. Has left Manchester. Stated to be on waiting list for Sanatorium.
4. Age 44	Patient obese. Impaired percussion note left apex. Signs of general bronchitis. Enlarged turbinate. Right nostril, nasal obstruction	.001 } .005 } June, .01 } 1920	Negative	None	Bronchitis and emphysema No evidence of active tubercle	4. Condition stationary. Extensive bronchitis. Not fit for work.
5. Age 38	Impaired percussion note right base, below scapular angle. Fine inspiratory crepitations. <i>X Ray.</i> —Fine consolidation spreading from roots of both lungs, especially right. Probably not active	.001 } .005 } June, .01 } 1920	Negative	None	Not active tubercle	5. Died 23rd December, 1920, from chronic bronchitis and cardiac failure.
6. Age 27	Tremors. Pulsation of arteries. Slight enlargement of thyroid. Impairment of percussion note right upper lobe and right root. Inspiratory phase rather harsh	.001 } .005 } Nov., .01 } 1920	Negative	Temperature: 100 after .001. No focal or local reaction. No reaction after .005 cc.	Hyperthyroidism. No evidence of active tubercle	6. Condition stationary. No signs of active disease.
7. Age 25	Percussion note right apex. Occasional post tussive râles right apex. Generalised bronchitis	.001 } .005 } July, .01 } 1920	Negative	None	Doubtful	7. In Barrow Colony. Condition improving.
8. Age 40	Emphysema. Transient creps. Right apex. Nasal obstruction. Enlarged turbinates	.002 } .005 } Aug., .015 } 1920	Negative	None	Not active tuberculosis	8. Condition stationary. Full work.
9. Age 38	Impairment of percussion note, right upper lobe. Expiratory phase prolonged. <i>X Ray.</i> —Root shadow right side. Considered suspicious only	.001 } .002 } Sept., .002 } 1920	None	None, except local reaction after second and third doses	Not active tuberculosis	9. Lost sight of, Address unknown.
10. Age 38	Scattered catarrhal signs in both lungs. Some diminution in expansion, right base. Rhinitis, pharyngitis. Both vocal cords infected in posterior two-thirds of their length	.001 } .005 } Nov., .01 } 1920	Negative	None	No evidence of active tuberculosis	10. Condition stationary. No definite active signs.
11. Age 29	Impairment of percussion note, right apex. Fine râles in both lungs. Deviated nasal septum. Blood pressure 170. Accentuated aortic, 2nd sound	.001 } .005 } Nov., .01 } 1920	Negative	None, except head-ache after second and third doses	No evidence of active tuberculosis	11. Health maintained. No signs of active disease. Working.
12. Age 36	Bronchitis and emphysema. Dilated stomach	Nil	None	None	Pyloric obstruction. Dilated stomach	12. Stated to have left Manchester.
13. Age 27	Generalised dry rhonchi throughout both lungs. Percussion note impaired left apex, behind	.001 } .005 } 1920 .01 }	Negative	None	No evidence of active tuberculosis	13. Condition stationary. Able to work, but unemployed.

TABLE III.—SHOWING THE APPLICATION OF TUBERCULIN TO THE DIAGNOSIS OF DOUBTFUL CASES IN 1921.

NOS.	PHYSICAL SIGNS	TUBERCULIN	SPUTUM	REACTION	DIAGNOSIS	AFTER HISTORY, FEBRUARY, 1923
1. Age 25	Slightly impaired note right apex in front. Deficient expansion of both bases. Scattered rhonchi throughout both lungs. Congested naso pharynx	.001 } Jan., .005 } 1921 .01 }	Negative	None	Bronchitis	No evidence of tuberculosis
2. Age 43	Impaired percussion note right apex. Rhonchi throughout both lungs. Emphysema	.001 } March, .005 } 1921 .01 }	Negative	Temperature : 100, and slight local reaction after .01. No focal or general reaction	Bronchitis. Not active tubercle	No evidence of tuberculosis
3. Age 58	Impaired percussion note to second rib. In front and fifth dorsal vertebra behind, with blowing breath sounds, emphysema	.001 } Jan., .005 } 1921 .01 }	Negative for T.B. Positive for albumin	No reaction	Diagnosis not complete	Died 4th May, 1921. "Cerebral hæmorrhage"
4. Age 38	Impaired percussion note over right side. Scattered rhonchi throughout right side. Râles both bases. Emphysema	.001 } July, .005 } 1921 .01 }	Negative	Local reaction to .01, with temperature of 99.2	Quiescent tuberculosis. Pleurisy, bronchitis, emphysema	Bronchitis and emphysema. No evidence of tuberculosis
5. Age 28	Slightly impaired percussion note over right lung. Poor respiratory murmur. Nasal obstruction	.001 } Nov., .005 } 1921 .01 }	Negative	Local reaction to .01	Probably quiescent tuberculosis, pleurisy	No evidence of tuberculosis
6. Age 27	Impaired percussion note over left apex	.001 } Sept., .005 } 1921 .01 }	Negative	Temperature : 99 after .01, .001, .005. No focal reaction	No evidence of active tubercle	No evidence of tuberculosis
7. Age 36	Impaired percussion note left apex in front and left lower apex behind with harsh inspiration X Ray.—Enlargement of bronchial glands both roots	.001 } .005 } .01 } .01 }	Negative for T.B. Positive for albumin	Moderate local reaction and head- ache after the second .01. No focal reaction	Not pulmonary tuberculosis	No evidence of tuberculosis

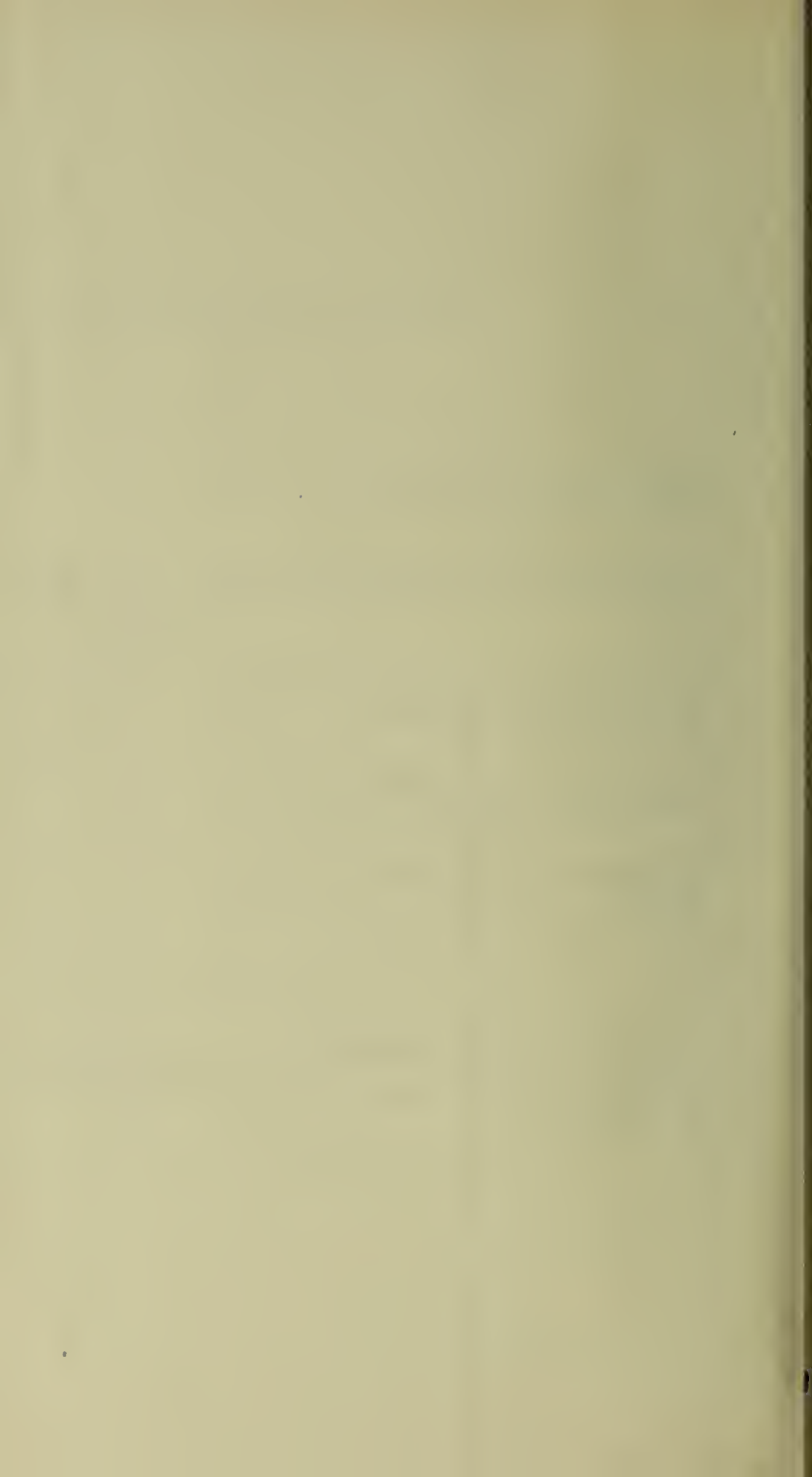
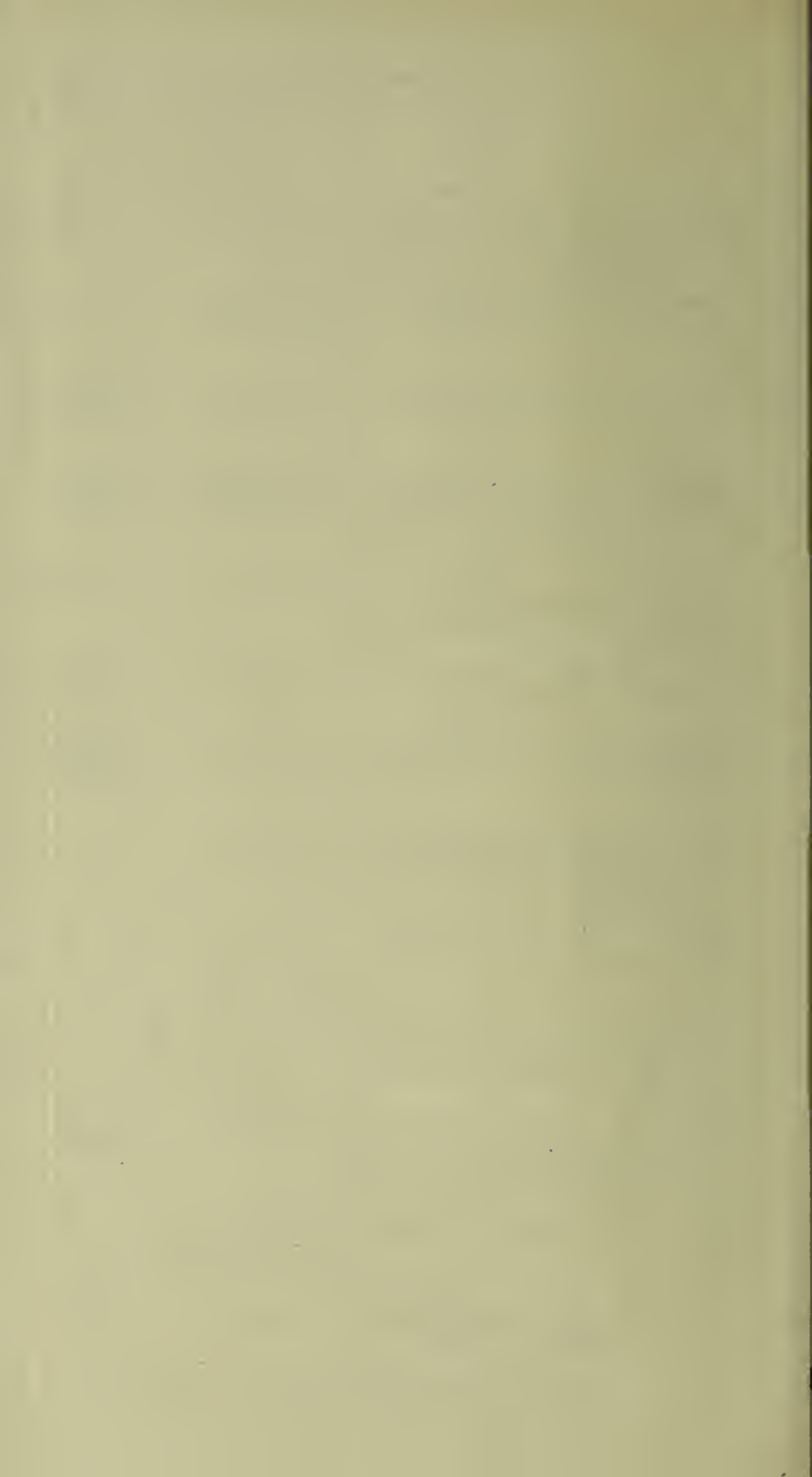


TABLE IV.—SHOWING THE APPLICATION OF TUBERCULIN TO THE DIAGNOSIS OF DOUBTFUL CASES IN 1922.

NOS.	PHYSICAL SIGNS	TUBERCULIN	SPUTUM	REACTION	DIAGNOSIS	AFTER HISTORY, FEBRUARY, 1923
1. Age 42	Greatly diminished expansion of left lung. Bronchitis. <i>X Ray</i> .—Indicates chronic bronchitis	.001 } .005 } May, .01 } 1922	Negative	None	Chronic bronchitis	Still has bronchitis. No evidence of tuberculosis
2. Age 41	Bronchitis and emphysema	.0002 } .001 } March, .005 } 1922 .01 }	Negative	None	Bronchitis No evidence of active tuberculosis	Died 29th March, 1923. Chronic bronchitis and heart failure
3. Age 51	Bronchitis and emphysema	.0002 } .001 } March, .005 } 1922 .01 }	Negative for T.B. Positive for albumin	None	Bronchitis. No evidence of active tuberculosis	Died 5th January, 1923, and certified acute pulmonary tuberculosis
4. Age 16	Mediastinal new growth, pressing the heart to the left. Heart dilated, especially left side <i>X Ray</i> .—Reports showed slow growth over a period of four months	.0002 } .001 } August, .005 } 1922 .01 }	Negative for T.B. Positive for albumin	General reaction after .005cc, slight local, no focal	Mediastinal neoplasm	No definite signs of active tuberculosis
5. Age 53	Bronchitis <i>X Ray</i> .—Fibrosis on both sides. Calcified foci at the roots and one in right lower lobe	.001 } .005 } Sept., .01 } 1922	Negative	None	Bronchitis. No evidence of active tuberculosis	Extensive bronchitis still present. Slight loss of weight, but no very definite signs of active tuberculosis
6. Age 47	Impaired note right apex in front; left apex behind. Bronchitis	.001 } .005 } May, .01 } 1922	Negative to T.B. and albumin	None	Bronchitis No evidence of active tuberculosis	Died 24th April, 1923. Chronic bronchitis
7. Age 67	Poor percussion note over left apex. Bronchitis both bases. Mitral stenosis. B.P. 120	.0002 } .001 } August, .005 } 1922 .01 }	Negative to T.B. Positive albumin	None	Bronchitis	Died 19th September, 1922. ? Heart failure
8. Age 21	Impaired percussion note over left apex in front and behind. Harsh breath sounds over left front and base <i>X Ray</i> .—Heavy fibrosis both roots. Few calcified foci	.0002 } .001 } Sept., .005 } 1922 .01 }	None	None	No evidence of active tubercle	Has left Eccles. Present address unknown
9. Age 41	Respiratory murmur weak over left apex. Larynx congested	.0002 } .001 } March, .005 } 1922 .01 }	None	None	Chronic laryngitis	Present condition unknown. Has not replied to our letter asking for particulars of her present health and working capacity
10. Age 20	Impaired percussion note left apex front and back. Few creps. <i>X Ray</i> .—No evidence of any tuberculosis	.075 July, 1922	None	Doubtful focal reaction	No evidence of active tubercle	No evidence of tuberculosis
11. Age	Dullness over right apex behind with prolongation of expiration <i>X Ray</i> .—Few calcified glands both roots. Apices clear. B.P. 140	.001 } .01 } March, 1922	Negative for T.B. Positive albumin	None	No evidence of active tubercle	No evidence of tuberculosis
12. Age 31	Slightly impaired percussion note both apices in front. Transient creps right apex	.001 } .005 } June, 1922	None	After .001 doubtful focal reaction. Faint creps right apex end of expiration	Absconded before diagnosis was complete	Condition stationary. Did not complete period of observation
13. Age 57	Few creps at right apex at inspiration persistent. Harsh respiratory murmur left apex. Bronchitis	.001 April, 1922	Negative	None	Bronchitis No evidence of active tubercle	Patient left district. Address unknown



ABERGELE SANATORIUM.

REPORT FOR THE YEAR ENDING DECEMBER 31ST, 1922, BY DR. A. G. M. GRANT,
MEDICAL SUPERINTENDENT.

During the year ending December 31st, 1922, 98 patients were admitted to the Sanatorium, including 1 readmission, and 98 were discharged. In addition, 10 children were admitted to Pen-y-Coed Bungalow, and a similar number was discharged. In 7 of these the disease was healed—cervical glands, 2 ; spine, 2 ; knee, 1 ; abdomen, 1 ; multiple abscesses, 1 ; but in 2—spine, 1 ; knee, 1—a certain amount of deformity remained. One—elbow—was much improved, and 2—hip, 1 ; spine, 1—both with extensive secondary infection, were unimproved. Of the 10 children discharged, 7 had had open lesions with sinuses on admission.

Table I. shows a classification according to age and sex of the cases under treatment :—

Ages	Males			Females		
	Admitted	Discharged	Died	Admitted	Discharged	Died
0 to 4	1	..	..	1	..	..
5 „ 14	1	5	..	7	5	..
15 „ 24	19	18	..	8	8	..
25 „ 34	17	18	..	9	9	..
35 „ 44	27	29	..	2	3	..
45 „ 64	15	13	..	1	..	..
65 +	..	..	..	..	..	..
Total	80	83	..	28	25	..

Table II. shows a classification of the immediate results of treatment in the discharged pulmonary cases.

(a) Patients in whose sputum tubercle bacilli were found :—

	No. of Cases	Disease Quiescent	Much Improved	Improved	Stationary or Worse	Died
Stage i. ..	2	1	..	1	..	..
„ ii. ..	7	..	4	2	1	..
„ iii. ..	36	..	7	23	6	..
Total ..	45	1	11	26	7	..

(b) Patients in whose sputum tubercle bacilli were not found :—

	No. of Cases	Disease Quiescent	Much Improved	Improved	Stationary or Worse	Died
Stage i. ..	44	38	6	..	..	..
" ii. ..	3	..	..	2	I	..
" iii. ..	4	..	2	I	I	..
Total ..	51	38	8	3	2	..

Two patients were considered not to be tuberculous—malignant disease, 1 ; and chronic bacterial infection resulting from gangrene of the lung, 1.

Table III. shows the result of treatment in the discharged tuberculous patients in relation both to their working capacity and to any alteration in their lung condition from the anatomical standpoint (Turban-Gerhardt classification).

Patients in whose sputum tubercle bacilli were found.

(a) Patients discharged with working capacity fully restored :—

Males						Females					
Stage on Admission	Number treated	Stage on Discharge				Stage on Admission	Number treated	Stage on Discharge			
		0	1	2	3			0	1	2	3
I	...	...	...	...	...	I	...	...	...	...	...
2	...	...	...	...	...	2	...	...	...	...	...
3	I	...	I	...	...	3	...	...	...	...	...
Total ...	I	...	I	...	...	Total ...	...	...	...	...	...

(b) Patients discharged with working capacity incompletely restored :—

Males						Females					
Stage on Admission	Number treated	Stage on Discharge				Stage on Admission	Number treated	Stage on Discharge			
		0	1	2	3			0	1	2	3
1	I	...	I	...	...	I	...	...	...	...	...
2	3	...	...	3	...	2	...	...	...	...	...
3	23	...	...	3	20	3	4	...	...	...	4
Total ...	27	...	I	6	20	Total ...	4	...	...	...	4

(c) Patients discharged without restoration of working capacity :—

Males						Females					
Stage on Admission	Number treated	Stage on Discharge				Stage on Admission	Number treated	Stage on Discharge			
		0	1	2	3			0	1	2	3
1	...	...	...	...	...	1	...	...	...	...	...
2	1	...	...	1	...	2	...	...	...	...	...
3	11	...	...	...	11	3	1	...	...	...	1
Total ...	12	...	...	1	11	Total ...	1	...	...	...	1

Patients in whose sputum tubercle bacilli were not found.

(a) Patients discharged with working capacity fully restored :—

Males						Females					
Stage on Admission	Number treated	Stage on Discharge				Stage on Admission	Number treated	Stage on Discharge			
		0	1	2	3			0	1	2	3
1	24	14	10	...	...	1	10	6	4	...	...
2	2	...	2	...	...	2	2	1	1	...	...
3	...	...	...	...	...	3	...	...	...	...	...
Total ...	26	14	12	...	...	Total ...	12	7	5	...	...

(b) Patients discharged with working capacity incompletely restored :—

Males						Females					
Stage on Admission	Number treated	Stage on Discharge				Stage on Admission	Number treated	Stage on Discharge			
		0	1	2	3			0	1	2	3
1	4	1	3	...	...	1	...	...	...	...	...
2	1	...	1	...	...	2	1	...	...	1	...
3	2	...	...	...	2	3	1	...	...	...	1
Total ...	7	1	4	...	2	Total ...	2	...	...	1	1

(c) Patients discharged without restoration of working capacity :—

Males						Females					
Stage on Admission	Number treated	Stage on Discharge				Stage on Admission	Number treated	Stage on Discharge			
		0	1	2	3			0	1	2	3
1	...	...	...	...	...	1	...	...	...	...	...
2	1	...	...	1	...	2	1	...	...	1	...
3	1	...	...	...	1	3	1	...	...	...	1
Total ...	2	...	...	1	1	Total ...	2	...	...	1	1

Of the discharged patients, 84 gained in weight, the average gain being 9 lbs. 5½ ozs.; 6 lost in weight, with an average loss of 1 lb. 11 ozs.; while 8 were not weighed. The greatest gains were recorded in the last three months of the year, the average weekly gain being 9 ozs., while in the three consecutive months—March to May—the gains were the lowest, averaging 2½ oz. a week.

The general treatment of rest and graduated exercise was conducted on similar lines to former years.

Blood pressure observations were continued, especially with reference to the effect of exercise.

Colloid calcium was tried, but the treatment was not sufficiently extensive to warrant any conclusion.

Lectures were given at intervals to the patients, and a course of lectures was also given to the nursing staff.

A series of observations on the effect of pulmonary tuberculosis on the vital capacity of the lungs was made throughout the year. Vital capacity may be defined as the maximum amount of air that can be expelled after the deepest possible inspiration. This test of physical fitness is based on the stature of the individual as expressed in weight, body height, and chest circumference. In the present series weight was latterly disregarded, as it was found that the rapid gains within the first two months after admission to the Sanatorium gave such variations in its relationship to vital capacity as to be a false index of progress. Professor Georges Dreyer has prepared a book of tables, giving the vital capacity of healthy individuals assessed on the basis of the above standards, and has grouped them into three classes, A, B, and C, representing conditions of perfect, medium, and poor physical fitness. In the Sanatorium series Class C was taken as the normal, *i.e.*, the lowest within healthy limits—with which a comparison was drawn.

The following table shows the diminution, or otherwise, of vital capacity of patients, grouped according to the Turban-Gerhardt anatomical classification :—

A. NUMBERS.

Turban Gerhardt Stage	Number of Cases	No Diminution of Vital Capacity	DIMINUTION OF VITAL CAPACITY.						
			Below 10 %	10—20 %	21—30 %	31—40 %	41—50 %	51—60 %	60 % +
i.	31	12	9	6	3	1	...	...	...
ii.	17	I	I	7	5	3	..	...	...
iii.	32	I	6	2	8	6	5	4	...

B. PERCENTAGES OF NUMBERS PER GROUP.

i.	31	38·7	2·9	19·3	9·6	3·2	...	...	...
ii.	17	5·8	5·8	41·1	29·3	17·6	...	...	...
iii.	32	3·1	18·7	6·2	25·0	18·7	15·6	12·5	...

Expressed as a whole in relation to the anatomical grouping, the vital capacity shows an average diminution of 8 per cent. in Stage i., 20 per cent. in Stage ii., and 30 per cent. in Stage iii.

The inference to be drawn is that the more extensive the lesion the greater is the diminution of vital capacity, but in addition to the actual physical disability dependent on the destruction of lung tissue there is closely related the associated toxæmia. As a general rule, the more advanced the disease the greater is the toxæmia, although there are many exceptions, and the increasing diminution of vital capacity in the advancing stages is due both to loss of lung structure and toxæmia. Artificial pneumothorax has an interesting bearing on the question, and a case may be mentioned in which the diminution of vital capacity, which was 25 per cent. before the induction, increased to 40 per cent. after the pneumothorax had been fully established. The depressing effect of toxæmia may be watched in the progress of any case which shows exacerbations of the disease throughout its course, and it is mainly owing to this factor that repeated readings over a prolonged period may be a guide in prognosis.

The spirometer used was that made by Georges Boullite, of Paris.

Farm.—Farming operations were carried out on the same principle as in former years.

Forest.—A nursery was laid out and planted with young seedling coniferæ, so as to furnish a supply for transplanting on the estate. It is hoped by this method to raise the pine trees from seed.

Garden.—A special fruit shed was built to meet the need of extra storage owing to the increased supply of fruit obtained from the new orchard.

MONSALL FEVER HOSPITAL.

REPORT BY Dr. K. C. MIDDLEMISS, Medical Superintendent.

REPORT FOR 1922.

The number of patients admitted was 4,046, a decrease of 426 on the preceding year.

The average daily number of patients in hospital was 468.9, as against 490.5 in 1921.

The average length of stay in hospital for all patients was 40.9 days.

The average daily number of resident officers, nurses, and servants was 209

The fatality rate for all cases was 5.1 per cent., as against 4.6 in 1921.

Forty-five of the deaths occurred within 48 hours of admission.

Twelve nurses contracted scarlet fever, 2 diphtheria, 2 measles, and 1 enteric fever.

Forty-six probationers left during or at the end of their trial months; 50 completed their training, 23 of whom proceeded to a general hospital.

SCARLET FEVER.

The number of patients admitted was 2,643, which is 530 less than in 1921.

The type of disease, generally speaking, was mild; 62 deaths occurred, giving a fatality rate of 2.2 per cent., as against 1.8 in 1921. The rate was higher in males than in females.

Five patients died within 48 hours of admission.

The average stay in hospital for patients who recovered was 45.3 days; for fatal cases, 14.8.

A swab was taken from the nose and throat of all Scarlet Fever admissions.

"RETURN" CASES.

The number of alleged infecting cases, which gave rise to 119 secondary cases out of a total of 2,790 discharges, was 109. This gives a "return" case rate of 3.9 per cent., as against 4.06 in 1921.

If the interval which elapsed between the arrival home of the infecting patient and the onset of the "return" case be limited to a month, the rate becomes 3·6 per cent., as against 3·3 in 1921.

The average number of days ill of the infecting cases was 47·3, and the average interval in days between the return home of the patient and the onset of the "return" case 12·1, the extremes being 2 and 32 days.

Ninety of the 109 infecting patients had uncomplicated attacks.

Antiseptic treatment of the nose and throat was carried out where necessary in cases of Scarlet Fever.

DIPHTHERIA.

Six hundred and eighty-seven patients were admitted, being 43 more than in 1921.

Seventy deaths occurred, giving a fatality rate of 10·1 per cent., as against 8·9 in 1921. The rate was higher in females than in males.

Twenty-two of the deaths took place within 48 hours of admission.

The larynx was found to be involved on admission in 8·9 per cent. of the cases.

Tracheotomy was performed on 22 patients, of whom 13 died, giving a fatality rate of 59·1 per cent. Of the deaths, 8 occurred within 48 hours of admission.

The average stay in hospital for patients who recovered was 41·5 days; for fatal cases, 8·8.

ENTERIC FEVER.

The number of admissions was 18, or 41 less than in 1921.

Three patients died, giving a fatality rate of 13·6, as against 13·7 in 1921.

The average stay in hospital for patients who recovered was 55·8 days; for fatal cases, 17·6.

Before discharge from hospital the stools and urine of all patients were submitted to bacteriological examination to ascertain the absence of the typhoid bacillus.

ERYSIPELAS.

The admissions numbered 167, an increase of 24 on the previous year.

Twelve deaths occurred, giving a fatality rate of 7.2 per cent., as against 8.1 in 1921.

The average stay in hospital for patients who recovered was 30.3 days ; for fatal cases, 11.8.

PUERPERAL FEVER.

Ninety-four patients were admitted, an increase of 16 on 1921.

In 47 instances the infant was admitted with the mother.

Twenty-two patients died, giving a fatality rate of 22.4 per cent. Four deaths took place within 48 hours of admission.

The average stay in hospital for patients who recovered was 30.3 days ; for fatal cases, 7.8.

CEREBRO-SPINAL FEVER.

Six patients were admitted and 3 died, giving a fatality rate of 50 per cent., as against 100 per cent. in 1921.

OTHER DISEASES.

In this class are included cases of Measles, Rubella, and Varicella, patients whose illness was incorrectly diagnosed, certain cases of non-notifiable disease, and infants admitted with their mothers.

Forty-one deaths occurred, giving a fatality rate of 11.6 per cent. Eleven deaths took place within 48 hours of admission.

The causes of death were measles 19, broncho-pneumonia 6, influenza 3, tuberculous meningitis 3, abortion 2, lobar pneumonia 2, laryngitis, septicæmia, septic abortion, parturition, salpingitis, influenzal pneumonia, each 1 death.

The average stay in hospital for patients who recovered was 21.1 days ; for fatal cases, 7.8.

MALNUTRITION CASES.

The ten cots at the Crèche were full practically the whole of the year with children suffering from Malnutrition.

One case was in hospital at the end of 1921, 19 cases were admitted, 10 were discharged in a good state of health, 1 died, and 9 remained at the end of the year.

LABORATORY REPORT.

All the necessary media were prepared by the Dispenser at the hospital.
The number of bacteriological examinations performed was as follows:—

Cultures from Nose, Throat, and Ear	10,796
„ Vagina „	7
„ Uterus	12
Widal reactions.. .. .	36
Typhoid Stools	30
„ Urine	28
Examination of Spinal Fluid.. .. .	32
„ Pus	15
„ Sputum	17
Smears from Throat	80
	11,053

STATISTICAL SUMMARY FOR THE YEAR 1922.

Remaining in hospital on January 1st, 1922	615
Patients admitted during 1922	4,046
	4,661
Recovered and died during 1922	4,185
Remaining in hospital on December 31st, 1922	476
	4,661
Total number of deaths during 1922	215
Net mortality	5.1%
Of the deaths, 45 occurred within 48 hours of admission	20.9%
Daily average number of patients	468.97
„ „ officers, nurses, and servants	209
Average stay of patients (in days)	40.9

TABLE SHOWING NUMBERS OF VARIOUS DISEASES TREATED, 1922.

DISEASE	Remaining in Hospital, Jan. 1st, 1922.	Admitted	Discharges and Deaths	Remaining in Hospital, Dec. 31st, 1922
Scarlatina	438	2643	2790	291
Diphtheria	131	687	693	125
Enteric Fever.....	10	18	22	6
Erysipelas	15	167	167	15
Puerperal Fever	12	94	98	8
Other Diseases	9	437	415	31
Total.....	615	4046	4185	476

COMPLICATIONS IN SCARLET FEVER.

Complication	Number	Percentage
Rhinorrhœa in Convalescence..	171	6.26
Otorrhœa.....	192	7.03
Nephritis	18	0.65
Albuminuria of Convalescence..	150	5.49
Adenitis and Abscess	12	0.43
Endocarditis	11	0.403

DIPHTHERIA.

AGE OF PATIENTS	MALE			FEMALE			TOTAL		
	Cases	Died		Cases	Died		Cases	Died	
Under 1 year ...	11	3		10	6		21	9	
1 to 2 years ...	14	5		19	5		33	10	
2 " 3 " ..	25	4		25	7		50	11	
3 " 4 " ...	26	3		15	4		41	7	
4 " 5 " ...	21	3		27	2		48	5	
5 " 10 " ...	123	7		150	9		273	16	
10 " 15 " ...	65	3		76	6		141	9	
15 " 20 " ...	18	...		18	2		36	2	
20 " 25 " ...	2	...		18	...		20	...	
25 " 30 " ...	3	...		7	...		10	...	
30 and over ...	5	...		15	1		20	1	
			Mor- tality percent.			Mor- tality percent.			Mor- tality percent.
Total	313	28	8.9	380	42	11.1	693	70	10.1

22 deaths occurred within 48 hours of admission.
Of the deaths, 3 were complicated by other co-existent diseases.

TRACHEOTOMY CASES.

AGE OF PATIENTS	NO. OF PATIENTS	DIED	MORTALITY PER CENT.
Under 1 year	2	2	100.0
1 to 2 years	4	4	100.0
2 " 3 "	6	3	50.0
3 " 4 "	3	2	66.6
4 " 5 "	4	2	50.0
5 " 10 "	3	...	...
10 " 15 "	...	...	...
15 and over	...	...	...
Total	22	13	59.1

Of the deaths, 8 occurred within 48 hours of admission.

ENTERIC FEVER.

TABLE SHOWING INTERVAL ELAPSING BETWEEN DATE WHEN PATIENT WAS FIRST SEEN BY A MEDICAL MAN AND THE DATE OF ADMISSION TO HOSPITAL; ALSO SHOWING DAY OF DISEASE ON ADMISSION.

DAYS' INTERVAL	Interval between admission and date when Patient was first seen by a Medical Attendant		Day of disease on admission			Day of disease on admission	
	All Cases	Deaths				All Cases	Deaths
Sent in on same day...	...	...	1st day	...	...	...	...
1 day interval ...	...	...	2nd	„	...	...	...
2 days' „ ...	1	...	3rd	„	...	...	...
3 „ „ ...	...	...	4th	„	...	...	...
4 „ „ ...	...	...	5th	„	...	...	...
5 „ „ ...	5	1	6th	„	...	1	...
6 „ „ ...	1	...	7th	„	...	...	...
7 „ „ ...	1	...	2nd week	...	...	10	2
8 „ „ ...	...	...	3rd	„	...	4	1
9 „ „ ...	3	...	4th	„	...	3	...
10 „ „ ...	2	...	5th	„	...	3	...
Over 10 days' interval	9	2	Over 5th week	...	...	1	...
Totals	22	3				22	3

OTHER DISEASES.

Certified as	Actual Disease								No.
Scarlet Fever	Erythema	...	...	...	...	...	...	...	16
	Tonsillitis	...	...	...	...	...	...	...	9
	Measles	...	...	...	...	...	...	...	9
	Nil	...	...	...	...	...	...	...	5
	Influenza	...	...	...	...	...	...	...	5
	Nasal Catarrh	...	...	...	...	...	...	...	1
	Bronchitis...	...	...	...	...	...	...	...	1
	Carried forward	...	...	...	...	...	...	...	46

Certified as	Actual Disease	No.
Erysipelas	Purulent Arthritis	1
	Septic sinus (thumb)	1
	Erythema	1
	Ulcer (face)	1
	Abscess (arm)	1
	„ (cheek)	1
	Seborrhœa	1
	Mitral Disease and Dropsy	1
	Phlebitis	1
	Cellulitis	1
	Orbital Cellulitis	1

Total 11, or 6.2 per cent.

	Actual Disease (the same or other)	
Measles	Measles	140
	Rubella	1
	Broncho-pneumonia	2
	Nil	2
	Septic rash	1
Varicella	Varicella	3
“ With Mother ”	“ With Mother ”	15
Influenza and Pneumonia	Influenza and Pneumonia	4
Cellulitis... ..	Cellulitis	1
Dysentery	Dysentery... ..	1
For observation	Nil	1
	Broncho-pneumonia	—
Anthrax	Impetigo	1
Encephalitis Lethargica	Encephalitis Lethargica	3
	Constipation	1
Cerebro-Spinal Fever ...	Tuberculous Meningitis	3
	Lobar Pneumonia	1
	Measles	1
Meningitis	Constipation	1
Threatened Abortion ...	Threatened Abortion	1
Pneumonia	Broncho-pneumonia	1
Poliomyelitis	Poliomyelitis	1

Total 185.

ANNUAL REPORT OF THE VETERINARY AND MILK CONTROL DEPARTMENT.

BY LIEUT.-COL. J. W. BRITTLEBANK, C.M.G., M.R.C.V.S., D.V.S.M. (Vict.).

MILK AND TUBERCULOSIS.

The total number of farmers in the City is 76.

During the year the total number of visits paid to these farms is 269, the number of inspections of cowsheds is 566, and the number of individual inspections of cows is 5,573.

There has been little to disturb the ordinary conditions of cowkeeping in the City. The outbreaks of Foot and Mouth Disease occurring during the early part of the year have already been referred to in Dr. Niven's final report presented in 1922.

Cattle have maintained a fairly high value, and the various outbreaks of Foot and Mouth Disease, and the consequent restrictions, have frequently resulted in making it more difficult to obtain fresh cattle from the ordinary sources of supply.

The health and cleanliness of the cattle housed in the City has been well maintained, and there have been few serious causes for complaint.

One case of tuberculosis of the udder was found during the year and 17 cows were removed from the herds at my request, principally because they were in my opinion likely to become unsafe, and were for the most part in my opinion suffering from active tuberculosis in some form or other.

Two farms were closed during the year, the buildings being demolished to allow of house building.

DAIRIES AND MILKSHOPS.

The policy pursued during the year was in continuance of that laid down during 1921, and consisted of completing the survey to be ready for the Milk and Dairies (Amendment) Act, 1923, which passed into law on September 1st, 1922. The Milk (Special Designations) Order made under the Act was, however, the subject of much discussion between the Ministry of Health and the various parties interested, and was not issued until the end of the year.

The first important change conferred by the Milk and Dairies (Amendment) Act is that discretionary power is now allowed to the local authority in regard to registration, and they may now under certain conditions either refuse to register or may cancel a registration in the event of the public health

being (or likely to be) endangered. The procedure is most elaborate in that the local authority have to serve upon the applicant a notice to appear before them not less than seven clear days after the notice to show cause why the local authority should not refuse to register him, and any person aggrieved by the decision of the local authority may appeal to a Court of Summary Jurisdiction, and if still aggrieved to a Court of Quarter Sessions.

The local authority may also utilise the same legal avenues, and they may also in the case of a registered person convicted of any other offence under the various enactments relating to milk and dairies make application to the Court to order the removal from the register of the person convicted.

There can be little doubt that the powers conferred by section 2 of the Milk and Dairies (Amendment) Act will be of great value to all local authorities.

A further novel principle enunciated in the Act is that of grading milk, and without going into full details it may be stated that four special grades are provided for :—

1. Certified.
2. Grade A (Tuberculin tested).
3. Grade A.
4. Pasteurised.

The conditions under which these special grades of milk are produced are laid down in the Milk (Special Designations) Order, 1922, amended subsequently by the Order of 1923, and energetic steps have been taken to apply the provisions laid down, but these steps have been confined at the outset principally to the provision of pasteurised milk as providing as policy of urgent expediency the shortest cut to obtain reasonably safe clean milk in bulk.

The Ministry of Health have wisely decided that the method of pasteurisation to be adopted must be the low temperature or "holder" process, where the milk is heated to a temperature of between 145° and 150° F. and held at that temperature for not less than 30 minutes, and that, further, such holders must be positive and not of the "flow" type.

The immediate result of this has been that dairy engineers have designed many admirable devices for the purpose, but, unfortunately, some of the machines are complicated and not easy to clean.

In actual commercial use it appears to me that the first essentials to aim at are simplicity of design with reasonable stability, and, further, machines must be easy to clean and sterilise and practically fool-proof, and it is gratifying to note that a number of the makers are doing their best to comply with these conditions. Indeed, the immediate result of the new milk legislation has been to stimulate improvement in many directions in dairy appliances.

So far as the work of 1922 is concerned it is too early to speak of any results obtained, but it is sufficient to say that two, at any rate, of the large dairy firms immediately placed orders for the installation of plant for the preparation of pasteurised milk under licence, and it is safe to say that other firms will follow; and it should not be very long before a copious supply of such milk is available.

The general work of milkshop inspection has been carried out during the year almost entirely by the district sanitary inspectors, and the total number of visits of inspection made during the year is 16,782 to 2,241 dairies and milkshops.

The majority of these visits are paid to the smaller milkshops which retail a multitude of other articles, and are directed principally to the maintenance of superficial cleanliness and the prevention of gross contamination, and so far as the multitudinous duties of district sanitary inspectors permit they have done probably as much as they could, but the system cannot be satisfactory any more than are a great number of the milkshops to which I have referred at considerable length in previous reports, and can only remain a partial palliative.

It is to be hoped that the preliminary policy approved by the Public Health Committee, which is based upon the recommendation of the Medical Officer of Health, will in its results prove sufficiently encouraging to justify an advance in the direction of the shortest and most practical route to improvement, but the carrying out of this policy requires close and special supervision by a staff specially qualified for the work.

The following report, laying down the policy referred to above, is really not part of the work strictly applicable to the year 1922, but in view of its important bearing upon the work in hand I have included it:—

Nuisance Sub-Committee,

February 27th, 1923.

Milk and Dairies (Amendment) Act, 1922.

Public Health Office,

Manchester,

February 26th, 1923.

To the Nuisance Sub-Committee.

The Medical Officer of Health has duly considered with Colonel Brittlebank the general question of the conditions under which the sale of milk should be carried on, and recommends that:—

1. Existing businesses should be considered for the present on a separate basis from proposals to open new businesses. He recommends that provided there are reasonable grounds for the presumption that milk can be stored and sold without serious contamination in the premises which are at present and have been continuously registered for the sale of milk, and that the applicants are suitable, the registration may be acceded to by the Committee. The position to be reviewed from time to time with due regard to the best interests of the public health.

2. The Medical Officer of Health further recommends that applications for the registration of new milkshops should receive special consideration, and that, broadly, only such persons who propose to conduct a purely dairy business in suitable premises should be approved.

He is of opinion that, at any rate, the following conditions should be fulfilled :—

The individual making application to be a suitable person.

The premises to be in a satisfactory sanitary condition and in a suitable situation, *e.g.*, not in close proximity to closets, ashpits, manure pits, etc.

Milkshops to be well lighted and ventilated, and provided with satisfactory separate accommodation for cleansing milk vessels and for storage of milk.

He is further of opinion that the sale of milk cannot be satisfactory in premises where certain articles of food and merchandise are exposed for sale.

These include :—

Drapery,
Haberdashery,
Hosiery,
Newspapers,
Firewood,
Rubbing and cleaning stones,
Fish,
Game,
Tripe,
Vegetables } excluding tinned or bottled vegetables and fruit,
Fruit }
Tobacco,
Paraffin and other oils,

and any other article which, in distribution or storage, will disseminate dust or by effluvium be liable to affect milk undesirably.

R. VEITCH CLARK,
Medical Officer of Health.

My thanks are again due to the officials of the Manchester and Salford Milk Dealers' Association, and particularly to Mr. Shenton, their energetic and courteous secretary, for their assistance during the year.

ICE-CREAM.

I have little to add to what I wrote on this branch of the work in my last annual contribution to the Medical Officer of Health's report. The very utmost has been done, with the assistance of Inspector Greenup and the District Inspectors, to carry out as much supervision of this widespread industry as possible. We now have a fairly comprehensive register of those concerned in the trade, but during the prolonged depression in trade many persons have been found trying to make a living by making and selling ice-cream. They are for the most part worthy people for whom one is bound to feel a great deal of sympathy, but they usually know nothing about the business, and in practically all cases their premises are totally unfitted for the purpose to which they are put.

There can, however, be no doubt that a very great increase of supervision of this industry is required, having in view the fact that it is so largely consumed by the juvenile portion of the population, and how essential it is that at all stages of its manufacture and sale contamination should be prevented.

TABLE I.

MILK.

Number of milkshops on the register, December 31st, 1922 ..	2,241
„ „ visits by Inspectors (includes District Inspectors) ..	16,782
„ „ applications for registration	406
„ found unregistered	73
„ without indicator over door	25
„ of vessels uncovered	8
„ „ dirty premises	12
„ „ premises in disrepair	127
„ „ „ unfit for registration	14

ICE-CREAM.

Number on register	507
„ of visits by Inspectors	673
Dirty premises	110
Boiled mixture uncovered	9
Premises in disrepair	50
Defective ashbins.. .. .	6
Premises unfit	7
Dirty clothing	6
„ water-closets	1
Prosecutions	2

WORKING OF THE MANCHESTER MILK CLAUSES.

The work to be dealt with under this heading is confined to the general measures in operation for dealing with milk coming into Manchester from beyond the boundaries of the City.

During the year 479 samples of mixed milk were taken in the City for bacteriological examination, and of these the Food and Drug Inspectors collected 254 at the railway stations and 31 from vehicles entering the City by road.

The number of samples taken at day nurseries and hospitals is 165 and from City dairies and farms 65.

The total number of mixed samples found to cause tuberculosis is 21.

The mixed samples taken represent the control of 243 farmers, and of these 152 reside in Cheshire, and 16 of them, or 10·52 per cent., sent tuberculous milk; 47 are in Derbyshire, and 3 of them, or 6·34 per cent., sent tuberculous milk; 28 are in Lancashire, and 1 of them, or 3·57 per cent., sent tuberculous milk; 15 reside in Staffordshire, and 1 of them, or 6·66 per cent., sent tuberculous milk; the remaining farmer is in Westmoreland, and the milk was free from tuberculosis.

The table completed to date from 1901 is inserted.

TABLE II.

YEAR	Number of Farmers' Milk tested during the year	Total number found to cause Tuberculosis in the experimental animal	Percentage of Farmers sending Tuberculous Milk	Percentage of Farmers from EACH COUNTY whose Milk was found to cause Tuberculosis						
				Cheshire	Derbyshire	Staffordshire	Shropshire	Lancashire	Yorkshire	Manchester
1901	272	27	9'90	10'46	9'23	8'00	10'00	...	...	...
1902	345	36	10'40	12'72	8'65	4'01	...	8'31	...	...
1903	329	45	13'60	14'76	9'58	15'15	40'00	...	...	...
1904	318	29	9'10	11'17	6'02	...	...	7'14	25'00	...
1905	565	47	8'30	10'26	6'00	6'38	...	2'98	12'50	...
1906	542	42	7'70	8'60	6'50	9'30	12'50	4'00	...	...
1907	562	38	6'76	7'71	4'48	6'94	12'50	3'70	...	...
1908	289	27	9'34	11'56	6'25	7'70	...	2'94	12'50	...
1909	535	31	5'79	4'80	7'47	8'57	11'11	3'33	..	...
1910	468	30	6'41	6'20	8'69	5'55	...	...	...	...
1911	494	51	10'32	11'11	2'5	12'12	10'00	12'20	50'00	...
1912	484	54	11'15	12'94	4'00	10'20	33'33	6'00	10'00	...
1913	486	60	12'51	13'99	11'58	9'26	33'33	5'88	20'00	...
1914	352	34	9'66	12'39	8'19	...	...	2'77	...	...
1915	69	9	13'04	16'21	...	...	...	13'63	...	...
1916	321	38	11'83	11'59	8'80	13'04	...	6'97	...	...
1917	365	37	10'13	13'54	9'3	4'3	...	11'7	...	11'4
1918	288	18	6'25	8'17	5'12	4'16	...	3'57	...	2'6
1919	240	20	8'30	8'84	8'0	4'55	...	8'1	...	11'1
1920	194	29	14'94	18'75	10'71	...	...	5'88	...	...
1921	305	37	12'13	16'23	4'17	...	...	10'52	...	...
1922	243	21	8'64	10'52	6'34	6'66	...	3'57	...	...
Total..	8066	760	9'82	—	—	—	—	—	—	—

It will be seen that the average percentage of tuberculous milk supplied by the 243 farmers is 8.64 per cent., compared with 12.13 per cent. for 1921. The figure shows a gratifying fall, especially when compared with 1920, which was the apex year, and to a great extent fulfils the hope that I expressed in the report for 1921, "that having dealt with the most risky farms, some improvement will commence to show itself."

The same methods of selecting farms and areas as laid down before have been followed, and I think it may be taken that on the whole there is real improvement. But it must not be taken that the amount of infection found bears any exact relationship to what may really exist in the bulk. The work done only touches the very fringe of the problem, for all we have been able to do is to try and keep some check on the worst avenues of infection, and when found to try and remove it without delay. It is estimated from figures in possession of my department that there are some 1,500 farmers concerned in producing milk for Manchester, and it will be seen by reference to the Table what proportion of the total it has been found possible to deal with each year.

In order to supplement the work directly arising out of the Milk Clauses a very considerable number of farms have been kept under supervision, and on these five cases of tuberculosis of the udder were found by simple clinical examination of the herds; but in addition to these five animals a number of others suffering from various forms of disease, but particularly tuberculosis, have been removed from the farms by the voluntary co-operation of the farmers themselves, who as a rule readily follow the practical advice given—both with regard to stock and general management of the farm.

There is, moreover, a very decided limit to the work which can be done by one man—in an area which is as widespread as that from which the milk supply of a city like Manchester is drawn. In the light of a now long experience I am, however, certain that if such practical and friendly inspection of herds could be greatly extended it would not be long before the benefit would be felt. Valuable an adjunct as the bacteriological examination of mixed samples may be, it can in no way take the place of personal inspection of the sources of supply, where the whole problem under review can be properly assessed and dealt with. The finding of a tuberculous milk sample supplied from a certain source gives definite information that on a certain date the supply of such a farm was infective, but it is no guide as to the length of time such infection

has been in existence, nor does the finding of a definitely tuberculous udder clear up this point, for it is certain that no two cases are alike in the character of their progress. On the other hand the receipt of a negative report on a sample of milk is really of very little value, for it is no guide as to the state of a herd nor any guarantee that there may not be a number of animals bordering on the danger line ; and the actual result is to produce a sense of security, sufficient where such a vast field has to be covered and so little money is available to divert attention from sources of supply which may be a considerable menace.

I do not for a moment suggest that the clinician can operate without the bacteriologist, but, on the other hand, the whole field is one for team work, in which no team can be complete without the farmer, whose unstinted co-operation is essential to even a small measure of success.

The Manchester Milk Clauses have now been in operation for 24 years, and the wise administration of the former Medical Officer of Health (Dr. Niven) had much to do with the measure of success achieved, but I feel sure that he always knew that there must be a limit beyond which they would cease to effect progressive improvement, and that the mere process of removing a number of cows from the sources of production after they had distributed infection for an indefinite period could do little towards reducing the amount of tuberculosis in our herds.

Public opinion has advanced much of late years, and it has not left the farmer unmoved. The wastage from disease is mostly preventible, and money spent in this direction, supplemented by general advice on improved methods of handling milk and the economics of diet and breeding, would be one of the most remunerative forms of state aid which could be rendered to a very essential portion of the agricultural community, and I feel sure from my intimate knowledge of farmers that it would not be long before the demand for such practical assistance would be widespread, and what is of equal importance in these days of financial stress is that the cost need not be great in proportion to the results to be achieved.

The general question of dirt in milk has been dealt with at length by me in previous reports, and I regret it is not possible to congratulate the bulk of

the producers on any marked improvement in this respect, but the sheet-anchor of all public health work is optimism, and there now appears a glimmer of hope that the farmers' organisations themselves intend to tackle this very important question. By the kind offices of officials of various branches of the National Farmers' Union I was invited to lecture to their members particularly on the new milk legislation, and the principal meetings were held at Manchester, Preston, Crewe, Leek, Birkenhead, and were all largely attended. The field covered in such a series of lectures was of necessity a very wide one, but no lecturer could have had more appreciative and attentive listeners. The discussions which followed were keen and well maintained, and exhibited a keen desire on all sides to acquire information on the many points under discussion, and the general feeling was expressed that the time had now arrived when all parties interested should combine to secure the improvement necessary not only to the benefit of the producer but of the distributor and consumer. The great organisation which has been called into being under the name of the National Farmers' Union, operating as it does throughout its branches in every county in the United Kingdom, carries great responsibilities not only towards its own members but also to the general public, whose food supply is so much in their hands. The development of the Union has been steady, and characterised by wise statesmanship, and I feel sure that any appeal from those responsible for the public health would meet with their most serious consideration and co-operation, and I am hopeful that the time is not far distant when such an appeal will be made to come in and use their weighty influence for the public good.

Twenty of the cows found suffering from tuberculosis of the udder on country farms were slaughtered in my presence, the remaining one was sent off to the knackers by the owner as soon after my visit as the owner could make arrangements, despite the fact that I asked him to wait for bacteriological confirmation of my diagnosis. Of these 20 animals only two carcasses were found fit for food on inspection, and the remainder were condemned as unfit for human consumption.

I should also add that none of the cases of tuberculosis of the udder found during the year were of an advanced type. Indeed, in most cases the finding of the infecting animal was the first intimation that anything was wrong.

TABLE III.

SOURCE OF SAMPLES		NUMBER OF SAMPLES				NUMBER OF FARMS		Number of Cows Examined	COWS WITH TUBERCULOUS UDDERS		
		Primary and Subsequent	Control	Total	Positive Results	Inspected	Reinspected		Found	Slaughtered under supervision of a Vet. Surgeon	Removed from Farm and stated to have been Slaughtered
By Food and Drug Inspectors	Primary										
		242	12	254	*20	..	..	..	..	..	..
	Carts and City Dairies.. ..	30	1	31	..	..	..	..	..	..	..
	Nurseries and Hospitals. Mixed	165	..	165	3	..	..	..	..	..	..
By Veterinary Surgeon and Inspector Greenup	Primary										
		29	..	29	1	..	..	..	..	..	..
	Carts, City Farms, and City Dairies..										
	Country Farms. Individual	44	..	44	16	104	39	4,409	21	20	1
	City Farms. Individual	..	..	..	..		269	5,573	1	1	..
Totals		510	13	523	40	..	..	9,982	..	..	..

* Includes 3 Control samples found positive.

PNEUMONIA.

During 1922 the total number of notifications received was :—

Primary pneumonia	2268	} 2755
Influenzal pneumonia	487	

This is a considerable increase in the primary pneumonia and influenzal pneumonia notifications, the total for the preceding year being 1,796.

As in previous years, many of these notifications were duplicated, cases being again notified when admitted to hospital.

After carefully going over the investigation sheets, it was found that these 2,755 notifications referred to 2,566 cases, 2,053 being cases of primary pneumonia and 513 case of influenzal pneumonia.

In addition to the above, however, 543 deaths from pneumonia, 486 primary and 57 influenzal, all being unnotified cases, were brought to our notice through the death returns, and of these 443 primary and 53 influenzal cases were investigated. As will be seen on Table No. 1, the total number of fully investigated cases was 2,979, 2,430 being primary pneumonia and 549 influenzal pneumonia.

The delay between the diagnosis of pneumonia and the receipt of the notification is still considerable in all forms of the disease. Only 1,375 cases were notified within the first three days after diagnosis.

In 175 cases the patient had died prior to the receipt of notification.

Assistance in the form of milk was allowed in 158 cases where the actual income was below the standard scale.

The Health Visitors paid 7,396 visits in connection with cases suffering from all forms of pneumonia, compared with 4,685 visits in the previous year.

TABLE NO. 1.—SHOWING THE NUMBER OF PRIMARY AND INFLUENZAL PNEUMONIA CASES WHICH HAVE COME TO THE KNOWLEDGE OF THIS SECTION OF THE PUBLIC HEALTH DEPARTMENT DURING 1922.

THE TABLE ALSO SHOWS THE NUMBER OF NOTIFIED CASES, THE NUMBER OF CASES FULLY INVESTIGATED, AND THE TOTAL NUMBER OF KNOWN CASES.

	Notified Cases	Cases fully investigated	Cases not fully investigated	Total known Cases of Primary and Influenzal Pneumonia occurring in 1922
<i>(a) Primary Pneumonia—</i>				
1. Number of Primary Pneumonia cases notified and fully investigated	1,987	1,987		
2. Number of Primary Pneumonia cases notified and not fully investigated	66	2,430 443	66 43	2,539 (Primary)
3. Number of Primary Pneumonia deaths not previously notified, but fully investigated...	443			
4. Number of Primary Pneumonia deaths not previously notified, and not fully investigated	43			
				3,109
<i>(b) Influenzal Pneumonia—</i>				
1. Number of Influenzal Pneumonia cases notified and fully investigated	496	496		
2. Number of Influenzal Pneumonia cases notified and not fully investigated	17	549 53	17 4	570 (Influenzal)
3. Number of Influenzal Pneumonia deaths not previously notified, but fully investigated...	53		21	
4. Number of Influenzal Pneumonia deaths not previously notified and not fully investigated	4			
	3,109	2,979	130	3,109

PRIMARY PNEUMONIA.

The primary pneumonia cases have been subdivided into lobar and lobular where this information has been available, but as many cases were simply notified as pneumonia, it has been necessary to add another group, namely, unclassified. They are shown as follows :—

Lobar	...	...	...	...	...	...	...	...	...	751
Lobular	...	...	...	...	...	...	...	...	...	1,262
Influenzal	...	...	...	...	...	...	...	...	...	526
Total known cases of primary pneumonia	...	...	...	...	...	...	...	...	...	<u>2,539</u>

1,065 deaths occurred during 1922 among patients suffering from primary pneumonia, and are classified as follows :—

	(From investigation records)	(From returns of local Registrars of births and deaths)
Lobar	272	369
Lobular	599	588
Unclassified	194	67
		<u>1,065</u>
		<u>1,024</u>

This figure, 1,065, exceeds by 41 the number of deaths from primary pneumonia occurring during 1922, as revealed by the returns of the local Registrars of births and deaths, namely, 1,024. This difference is explained by the fact that deaths from primary pneumonia occurring in persons suffering from cancer, measles, and certain other diseases, which take precedence in the Registrar-General's classification of causes of deaths, are not allocated to pneumonia.

Of the 2,539 known cases of primary pneumonia, 2,430 were fully investigated, and are available for statistical purposes.

	Cases	Deaths
Lobar	702	257
Lobular	1,212	580
Unclassified	516	187
		<u>2,430</u>
		<u>1,024</u>

LOBAR PNEUMONIA.

In this group there were 475 males and 227 females affected. A total number of 702 cases. The age grouping of these is given below :—

Years of age	Males	Females	Total	Years of age	Males	Females	Total
0 to 1 ...	19	17	36	35 to 44 ...	75	25	100
1 to 4 ...	51	19	70	45 to 54 ...	55	29	84
5 to 9 ...	52	30	82	55 to 64 ...	33	20	53
10 to 14 ...	40	19	59	65 to 74 ...	19	22	41
15 to 19 ...	30	11	41	75 + ...	5	5	10
20 to 24 ...	36	9	45				
25 to 34 ...	60	21	81				
				All ages ...	475	227	702

571 cases were attacked for the first time, and 131 had previously had pneumonia.

445 cases recovered and 257 died, a case fatality of 36.6 per cent.

In 20 households, in addition to the case notified, another member of the family was found to be suffering from pneumonia at the time of visit.

Throughout the year the cases occurred during the various months as given below :—

January	50 cases	July	40 cases
February	42 „	August	49 „
March	64 „	September	60 „
April	76 „	October	37 „
May	58 „	November	85 „
June	51 „	December	90 „

The following table gives the occupations of the cases attacked.

Under school age	107
School children	131
Indoor workers	310
Outdoor workers	107
No occupation	47
	702

In 34 cases a history of tuberculosis in the family was given, 123 families were subject to bronchitis, and 185 families had been previously affected by pneumonia.

LOBULAR PNEUMONIA.

Of the fully investigated cases of lobular pneumonia, 630 cases were males and 582 were females, a total of 1,212 cases.

Age Distribution.

Years of age	Males	Females	Total	Years of age	Males	Females	Total
0 to 1 ...	191	180	371	35 to 44 ...	20	19	39
1 to 4 ...	300	278	578	45 to 54 ...	16	9	25
5 to 9 ...	43	38	81	55 to 64 ...	17	14	31
11 to 14 ...	3	3	6	65 to 74 ...	17	18	35
15 to 19 ...	3	4	7	75 +	6	12	18
20 to 24 ...	4	0	4				
25 to 34 ...	10	7	17				
				All ages ...	630	582	1212

Of the 1,212 cases, 1,057 were suffering from a first attack.

In 632 cases the patient recovered and 580 cases died, a case fatality of 47.9 per cent.

The cases occurred during the year as follows :—

January	136 cases	July	52 cases
February	106 „	August	55 „
March	158 „	September	47 „
April	116 „	October	54 „
May	82 „	November... ..	123 „
June	92 „	December	191 „

Occupations.

Under school age	... ..	942
Of school age	... ..	89
Indoor work	... ..	109
Outdoor work	... ..	29
No occupation	... ..	43

1,212

In 36 families other cases of pneumonia were found to be present at time of visit in addition to the case notified.

In 60 instances histories of tuberculosis in the family were given, and in 318 families there was a history of bronchitis.

UNCLASSIFIED PNEUMONIA.

516 cases notified merely as "pneumonia" were fully investigated; of these 318 were males and 198 females.

Age Groups.

Years of age	Males	Females	Total	Years of age	Males	Females	Total
0 to 1 ...	26	22	48	35 to 44 ...	35	15	50
1 to 4 ...	66	58	124	45 to 54 ...	39	19	58
5 to 9 ...	31	21	52	55 to 64 ...	19	15	34
10 to 14 ...	14	8	22	65 to 74 ...	10	12	22
15 to 19 ...	23	8	31	75 +	4	5	9
20 to 24 ...	14	4	18				
25 to 34 ...	37	11	48				
				All ages ...	318	198	516

In 427 cases this was the first attack of pneumonia. 89 cases had had pneumonia previously.

329 cases recovered and 187 died, a case fatality of 36.2 per cent.

In 33 cases there was a family history of tuberculosis, and of bronchitis in 94 instances.

The cases occurred in the following months :—

January	49 cases	July	30 cases
February	54 „	August	35 „
March	46 „	September	23 „
April	43 „	October	32 „
May	36 „	November... ..	69 „
June	47 „	December	52 „

Occupations.

Under school age	167
Of school age	77
Indoor workers	192
Outdoor workers	59
No occupation	21

516

INFLUENZAL PNEUMONIA.

As shown on Table No. 1, 570 cases of influenzal pneumonia came to our knowledge, and of these 549 were fully investigated.

In this group there were 315 males and 234 females affected.

Age Distribution.

Years of age	Males	Females	Total	Years of age	Males	Females	Total
0 to 1 ...	17	8	24	35 to 44 ...	51	29	80
1 to 4 ...	35	37	72	45 to 54 ...	35	35	70
5 to 9 ...	15	9	24	55 to 64 ...	20	23	43
10 to 14 ...	9	10	19	65 to 74 ...	18	17	35
15 to 19 ...	24	15	39	75 +	10	8	18
20 to 24 ...	30	12	42				
25 to 34 ...	51	31	82				
				All ages ...	315	234	549

In 396 cases this was the first attack of pneumonia; 100 cases had suffered from primary pneumonia previously; 61 cases had had influenza previously.

335 cases recovered and 214 died, a case fatality of 39 per cent.

In 44 families other cases of pneumonia were found to be present besides the patient notified, and in 102-cases there were other members of the family suffering from influenza at the time of investigation.

In 8 households deaths from influenza had occurred at some recent period.

The cases were distributed in the following manner throughout the year:—

January	229 cases	July	11 cases
February	106 „	August	7 „
March	38 „	September	14 „
April	43 „	October	17 „
May	17 „	November... ..	19 „
June	9 „	December	39 „

Occupations.

Under school age	88
Of school age	42
Indoor workers	265
Outdoor workers	72
No occupations	29
Not stated	53

549

In 39 families there was a history of tuberculosis, and of bronchitis in 86 instances.

INFLUENZA.

The disease known as influenza, if uncomplicated by pneumonia, is not notifiable.

Cases of influenzal pneumonia are notifiable, and 570 cases of this disease have been considered under the heading of pneumonia.

Cases of influenza, however, come to the knowledge of this Department in the following way :—

- (1) Official death returns.
- (2) Brought to the notice of the Health Visitors.
- (3) Voluntary notifications from Medical Practitioners.

348 cases of influenza were brought to our notice in this way, and were investigated by the Health Visitors. A summary of the results of these investigations has been prepared.

Age Grouping of Cases.

Years of age	Males	Females	Total	Years of age	Males	Females	Total
0 to 1 ...	11	11	22	35 to 44 ...	19	27	46
1 to 4 ...	25	22	47	45 to 54 ...	14	19	33
5 to 9 ...	10	14	24	55 to 64 ...	11	14	25
10 to 14 ...	8	7	15	65 to 74 ...	10	15	25
15 to 19 ...	8	9	17	75 +	5	14	19
20 to 24 ...	5	12	17				
25 to 34 ...	21	37	58				
				All ages ...	147	201	348

The attacks were spread throughout the year in the following order :—

January	197 cases	July	1 case
February	70 „	August	2 cases
March	26 „	September	5 „
April	7 „	October	3 „
May	8 „	November... ..	18 „
June	2 „	December	9 „

Deaths (excluding influenzal pneumonia).

129 of the 348 cases died—57 males and 72 females—a case fatality of 37·1 per cent.

In the influenza cases investigated a previous history of tuberculosis was ascertained in only 4 instances.

These 348 cases of influenza occurred in 231 households.

In order to get a clearer understanding of the effects of influenza, as seen from the investigation sheets, the 570 influenzal pneumonia cases may now be considered with the 348 cases of influenza, making in all 918 known cases of influenza. Of these, 549 influenzal pneumonia cases and 348 cases of influenza were fully investigated.

	Males	Females	Total
Cases	462	435	897
Deaths	180	163	343

This shows a case fatality of 38.2 per cent.

The number of visits paid by the Health Visitors in respect of influenza was 970.

STATEMENT OF WORK DONE BY THE HEALTH VISITORS.

BY MISS SEED.

During the year 1922 the Maternity and Child Welfare Sub-Committee met eleven times.

The staff at the end of the year consisted of a Superintendent, an Assistant Superintendent, 52 Health Visitors, a Cleansing Nurse, and 7 female Clerks.

The main features of the Health Visitors' work, as in previous years, included the visitation of infants in their homes from the time the attention of the midwife or doctor ceases until the completion of the child's fifth year ; the investigation of cases of measles, whooping cough, pneumonia, and influenza, and the investigation and following up of cases of scabies and vermin.

As has been mentioned in former reports, despite the fall in the birth-rate, several of the Health Visitors' districts are too large to allow of their work being really effectual ; the length of time which must necessarily elapse in some instances between the visits undoes much of the good which more constant visiting would make secure ; and in order that the younger infants may not suffer unduly children in their fourth and fifth years are very irregularly visited unless there is some very unsatisfactory condition to attend to.

Table I. shows the work done throughout the year in each district worked by the Health Visitors.

Table II. compares the work of 1922 with that of the four preceding years.

Notification of Births Act.

The decrease in the number of births has continued ; 15,877 births were registered in 1922, as compared with 17,601 in the preceding year.

The total number of notifications received under the Notification of Births Act was 15,877, of which 4,495 were from doctors, 10,884 from midwives, and 498 from parents. Out of the total of 15,877, those occurring in the districts covered by the Health Visitors numbered 12,411. The registered births within the City numbered 15,855, and 13,495 were referred to the Health Visitors.

In addition to these, the Health Visitors " found " on their respective districts 126 children who were born during the current year, 222 who were born during 1921, 253 born during 1920, 129 born during 1919, and 74 born during 1918, thus adding a total of 804 new cases to be visited to those already distributed to them through the Notification of Births Act. These cases were either removals into Manchester from other towns or removals from (at present) unvisited areas of the City. The notification of the removal of an infant from one local authority to another has now become a general practice.

Deaths.

1,352 deaths of infants under one year of age occurred in the districts covered by the Health Visitors during 1922. Of these, 130 lived less than a day, 157 died over a day old and within a week, 221 died over a week old and within a month, 231 died over a month and under three months old, 214 over three months and under six months old, 191 over six months and under nine months old, and the remaining 208 between the ages of nine months and one year.

In 352 cases death was due to bronchitis and pneumonia, in 251 cases to prematurity, in 130 cases to enteritis, in 111 cases to debility and marasmus, in 72 cases to convulsions, in 27 cases to accidental deaths, including those due to want of attention at birth ; 25 cases died from tuberculosis, 29 from syphilis, 23 from influenza, 28 from whooping cough, 86 from measles, and the remaining 268 deaths were due to various other causes.

Table 3 shows the distribution of deaths according to districts of children under one year of age, and Table 4 shows the distinction for children of 1-5 years of age.

There were 888 deaths of children of one to five years of age. Of these 523 occurred in the second year of life, 245 in the third year, 77 in the fourth year, and 43 in the fifth year.



In 283 cases death was due to bronchitis and pneumonia, 34 children died from enteritis, 5 from debility and marasmus, 15 from convulsions, 35 from accidental causes, 84 from tuberculosis, 21 from influenza, 235 from measles, 51 from whooping cough, and 125 from various other causes, including 1 from syphilis.

Summer Diarrhœa.

From July 15th to September 30th, 1922, 71 cases of diarrhœa were visited. Of these, 15 occurred during the last two weeks in July, 31 during the month of August, and 25 during the month of September. These figures are considerably lower than those given for 1921, when 730 cases were visited.

The distribution of these cases is shown in Table 5, where a comparison of the cases for 1922 with those of the five preceding years likewise appears.

51 of the total cases were children under 12 months, and of these 18 were having breast feeding, 7 mixed feeding, and 28 entirely artificial feeding at the onset of the illness.

17 cases died, though not all of the deaths were ascribed to diarrhœa. 14 deaths were those of children under one year of age, and of these 9 had not yet attained their fourth month. Only 1 case was admitted to hospital.

Child Welfare Centres.

The close co-operation between the Health Visitors and the Infant Welfare Centres continues, and a scheme is in course of preparation whereby it is hoped that these two sections of Child Welfare work may be still more intimately connected.

The Medical Officers of the Centres gave a course of lectures to the Health Visitors, and all case sheets of infants who were not making satisfactory progress were submitted to them, as also the Health Visitors' reports on infants attending the Centres. A list of the new attendances at each of the Infant Welfare Centres was received each week, and the information passed on to the Health Visitors.

The Manchester Babies' Hospital.

The number of Corporation beds in the Manchester Babies' Hospital still remained at 18, and again the inadequacy of the accommodation resulted not infrequently in a long waiting list.

During 1922, 106 applications were received for admission to the hospital. Of these, 23 were cancelled for the following various reasons: 6 were admitted to other hospitals, 7 died before beds were available, 4 so much improved whilst on the waiting list that hospital treatment was no longer necessary, and in 6 instances the parents at the last minute were unwilling to allow their children to go into hospital.

Of the remaining 83 cases who *were* admitted to the hospital,

4 cases were sent in from the centre at 72, Rosamond Street West, C.-on-M.

11	„	„	„	„	„	226, Hyde Road, Gorton.
6	„	„	„	„	„	45, Higher Ardwick.
12	„	„	„	„	„	93, Hamilton Street, Collyhurst.
9	„	„	„	„	„	135, Pollard Street, Ancoats.
15	„	„	„	„	„	1, Manipur Street, Openshaw.
6	„	„	„	„	„	153, Cheetham Hill Rd., Cheetham.
6	„	„	„	„	„	Oldham Road, Newton.
7	„	„	„	„	„	40, Lower Moss Lane, Hulme.
1	„	„	„	„	„	Abbey Hey, Gorton.
2	„	„	„	„	„	Conran Street, Harpurhey.
1	„	„	„	„	„	Chorlton-cum-Hardy.
2	„	„	„	„	„	Miles Platting.
1	„	„	„	„	„	Public Health Office.

83

The various conditions from which the children were notified to be suffering were :—

	Cases		Cases
Malnutrition	14	Marasmus	8
Atrophy	9	Bronchitis	1
Dyspepsia	42	Rickets	2
Prematurity	4		—
		Total	83

The ages of the infants on admission were :—

	Cases		Cases
Under 1 month	3	Aged 7 months	2
Aged 1 „	7	„ 8 „	1
„ 2 months	11	„ 9 „	3
„ 3 „	18	„ 10 „	2
„ 4 „	21	„ 11 „ (and over)	3
„ 5 „	7		—
„ 6 „	5	Total	83

The length of stay in hospital varied as follows :—

I remained in hospital for				I day
I	„	„	„	5 days
I	„	„	„	2 „
I	„	„	„	4 „
5	„	„	„	I week
5	„	„	„	2 weeks
4	„	„	„	3 „
6	„	„	„	4 „
3	„	„	„	5 „
3	„	„	„	6 „
8	„	„	„	7 „
9	„	„	„	8 „
5	„	„	„	9 „
3	„	„	„	10 „
I	„	„	„	11 „
4	„	„	„	12 „
3	„	„	„	14 „
2	„	„	„	15 „
6	„	„	„	16 „
2	„	„	„	20 „
2	„	„	„	24 „
8 still in hospital				

Eighteen of the cases died in hospital and 8 have died since discharge. About 75 per cent. of the mothers attended the Infant Welfare Centres regularly after receiving their infants home again from hospital. The Health Visitors visited the children promptly as soon as the notification of discharge was received, and a report of the conditions found was sent to the hospital. Attendance at a Centre was always strongly urged. From the latest reports on the hospital cases, 41 were said to be in a satisfactory condition and 7 were unsatisfactory. 1 case has removed out of Manchester.

Creche Ward, Monsall.

This ward is kept for the reception of children between the ages of 1 and 2 years suffering from malnutrition.

During the year 21 applications for admission to the crèche ward were received, and 20 children were admitted, The remaining case was admitted to Pendlebury hospital.

Of the 20 cases admitted :—

3	cases	were	sent	in	through	Dr. Drummond	from	the	Public	Health	Office.
8	„	„	„	„		The Collyhurst	Infant	Welfare	Centre.		
3	„	„	„	„		Openshaw	„	„	„		
2	„	„	„	„		Ardwick	„	„	„		
2	„	„	„	„		Chorlton-upon-Medlock	Infant	Welfare	Centre.		
1	„	was	„	„		Harpurhey	Infant	Welfare	Centre.		
1	„	„	„	„		Cheetham	„	„	„		

—
20

Sixteen children were admitted suffering from rickets, 1 child was suffering from malnutrition, 1 from debility, and 2 children from atrophy.

The length of stay in hospital varied from 3 weeks to 56 weeks.

Five children were still in the Ward at the end of the year, and of the 13 cases who were discharged, 1 child died, 5 children are now reported to be in a very unsatisfactory condition, 4 are satisfactory, and 3 continue to improve.

Only 2 children attended the Infant Welfare Centre after their discharge.

Two children died during the time they were in hospital.

Measles, German Measles, and Whooping Cough.

During 1922 we were called upon to deal with the largest epidemic of measles which has occurred since that disease became compulsorily notifiable in 1915.

19,614 cases of measles and 177 of German measles were notified during the year, and of these, 17,909 measles and 97 German measles cases were visited and kept under observation by the Health Visitors.

The amount of visiting done in connection with the measles epidemic, which began about the end of March and did not subside until September, necessarily caused considerable interference with the routine of the infant work, though many infants were seen in the course of the measles visits.

The Ministry of Health sanctioned the appointment of 3 temporary measles visitors to assist with the additional work, whereas in a smaller epidemic in 1920, involving 10,600 cases, 7 temporary measles visitors were appointed. Thus, on this occasion, the burden fell with double severity on the Health Visiting Staff.

It was fortunate that there was a substantial decrease in the number of whooping cough cases in the City, 2,162 cases being notified. The corresponding figure for 1921 was 4,415.)

The distribution of these diseases throughout the City, and the mortality therefrom, together with a report showing how the various age groups have been affected by measles, are to be found elsewhere. (See pages 44-47.

Pneumonia.

A full report of the work done with regard to pneumonia appears elsewhere (pages 135-141). 2,755 notifications of pneumonia were received (2,268 primary pneumonia and 487 influenzal pneumonia), which is an increase of 959 on the notifications for the preceding year.

Relief.

The grant which originated in 1917 to supply milk to young children suffering from measles, whooping cough, pneumonia, etc., in families where the actual income was below the standard scale was continued, but the sum was reduced from the original £200 to £150, and the age limit from children under 5 years of age to those under 3 years of age, except in very special circumstances.

Throughout the year 764 applications for milk were granted, and 11,160 pints of milk were given.

As in preceding years, we have endeavoured to use these grants of milk as a means towards the better nursing of young patients at home, and have insisted upon the necessary instructions given by the Health Visitors being carried out, as far as means would permit, wherever relief has been given.

Verminous Work.

The number of notifications received from the Education Authorities in respect of verminous cases shows a slight increase, 580 having been sent in this year as compared with 514 in 1921.

27 notifications were received as regards cases of scabies. In this particular instance the word "case" means households affected. This figure is slightly less than in the preceding year.

51 children in all were sent to the Cleansing Station by the Education Authorities throughout the year—a slight increase. Of these, 14 had body vermin only, 15 had head vermin only, and 22 had body and head vermin.

The Cleansing Station was in use for this purpose on 12 days. It was also used for the cleansing of 6 voluntary cases where conditions were beyond cleansing by home methods.

In addition to the work at the Cleansing Station and the clerical duties appertaining to this appointment, the Cleansing Nurse paid 630 visits to verminous cases and carried out "home cleansings" in 9 families at their request. Though these "home cleansings" take up considerable time, the results are sufficiently satisfactory to justify their continuance.

Where necessary, the clothing and bedding are stoved after these cleansings have been carried out.

Eleven cases of neglect were referred to the National Society for the Prevention of Cruelty to Children, and visits from the Society's officers have been helpful even without resorting to prosecution.

We are again indebted to the Lord Mayor, through whose kindness we received a supply of Charity Forms, which enabled us to recommend a number of necessitous cases for gifts of sheets or quilts.

A summary of the work done by the two Health Visitors under the supervision of the Ladies' Society for Visiting the Jewish Poor, and of the Medical Officer of Health, is given in the following tables :—

Strangeways and Red Bank were worked as separate districts by two Health Visitors until September 16th, 1922, when one Health Visitor resigned, and the two districts were then combined, and the work carried on by one Health Visitor.

Work of the Jewish Health Visitors during the Year 1922.

DISTRICT	HOUSE-TO-HOUSE INSPECTIONS								RE-INSPECTIONS			Primary Infants	Subsequent	Children from 1 to 5 years	Total Number of
	Number of Visits	Overcrowdings	Disrepair	Dirty	Cellars Dirty or Dilapidated	Yards Defective	W.C.'s Defective	Referred to Sanitary Dept.	Number of Visits	Defects Remedied	New Complaints Referred				
Red Bank	797	..	..	..	..	..	..	276	291	304	317	198	1978	1483	47-
Strangeways	226	..	..	..	..	..	..	64	218	65	52	51	631	879	200
TOTAL	1023	..	..	..	..	..	..	340	509	369	369	249	2609	2362	675

TABLE 3.

DISTRICT	Number of Health Visitors working in the District	Number of Deaths of Children under one year of age	CAUSES OF DEATH—1922. CHILDREN UNDER 12 MONTHS.											
			Bronchitis and Pneumonia	Prematurity	Debility and Marasmus	Enteritis	Convulsions	Tuberculosis	Syphilis	Accidental Deaths, including Want of Attention at Birth	Influenza	Measles	Whooping Cough	Other Causes
Ancoats	5	138	34	33	8	15	2	2	5	3	1	14	3	18
Central—London Road	1	30	9	4	3	4	1	..	..	2	..	4	..	3
St. George's, including Monsall West	5	165	40	22	12	15	11	5	5	5	2	19	1	28
Chorlton-upon-Medlock	4	123	29	13	9	17	4	..	6	3	2	6	2	32
Hulme and Deansgate	6	197	50	37	15	23	11	3	2	2	5	23	3	23
Ardwick	4	105	25	17	9	14	7	1	4	3	3	3	3	16
Openshaw	1	20	6	4	1	3	3	..	..	..	..	..	..	3
West Gorton, including Longsight	2	45	9	6	4	2	4	1	1	4	2	5	..	7
Gorton	3	81	27	17	4	6	1	4	1	..	..	1	8	12
Beswick	1	27	5	6	3	3	2	..	..	..	..	..	2	6
Newton, including Miles Platting and Monsall East ..	4	93	34	13	4	9	5	2	..	1	4	3	1	17
Bradford	1	39	10	11	7	2	2	2	1	1	..	1	..	2
Harpurhey	1	37	7	13	3	2	2	..	1	..	..	3	1	5
Blackley	1	21	4	5	2	3	2	..	..	..	1	..	..	4
Special Districts	2	70	24	5	11	4	7	2	1	1	1	2	1	11
Clayton	1	27	6	6	8	..	..	1	..	..	1	..	..	5
Moston	1	25	5	11	1	..	2	..	..	1	..	..	2	3
Moss Side	1	42	8	13	4	3	..	2	1	..	..	..	1	10
Rusholme	1	32	12	4	2	3	5	..	..	1	..	..	..	5
Kirkmanshulme and Levenshulme	1	35	8	11	1	2	1	..	1	..	1	2	..	8
Total	46	1,352	352	251	111	130	72	25	29	27	23	86	28	218



TABLE 4

150B

DISTRICT	Number of Health Visitors working in the District	Number of Deaths among Children 1 to 5 years of age	CAUSES OF DEATH—1922. CHILDREN ONE TO FIVE YEARS										
			Bronchitis and Pneumonia	Debility and Marasmus	Enteritis	Convulsions	Tuberculosis	Syphilis	Accidental Deaths, including Want of Attention at Birth	Influenza	Measles	Whooping Cough	Other Causes
Ancoats	5	96	32	..	4	..	5	..	2	2	36	6	9
Central—London Road	1	20	7	..	1	..	..	..	1	..	11	..	..
St. George's, including Monsall West	5	108	30	..	7	..	13	..	6	1	34	..	17
Chorlton-upon-Medlock	4	73	19	2	..	3	13	..	3	3	11	5	14
Hulme and Deansgate	6	179	48	2	9	2	12	..	5	1	60	13	27
Ardwick	4	68	32	..	2	2	8	..	2	..	8	6	8
Openshaw	1	14	8	..	..	..	..	..	1	1	2	2	..
West Gorton, including Longsight	2	27	8	..	1	2	2	..	2	3	5	..	4
Gorton	3	63	15	1	1	2	9	..	3	2	8	12	10
Beswick	1	36	12	..	2	1	4	..	1	1	12	..	3
Newton, including Miles Platting and Monsall East . .	4	60	19	..	5	..	6	..	1	1	17	2	9
Bradford	1	25	12	..	..	..	..	..	2	3	5	..	3
Harpurhey	1	17	7	..	..	1	1	..	2	..	1	1	4
Blackley	1	15	3	..	..	..	3	..	..	1	2	1	5
Special Districts	2	39	16	..	1	..	3	..	3	1	11	..	4
Clayton	1	15	2	..	1	..	1	1	..	1	5	1	3
Moston	1	9	6	..	..	..	..	..	..	..	1	2	..
Moss Side	1	10	2	..	..	2	2	..	1	..	1	..	2
Rusholme	1	7	3	..	..	..	1	..	..	..	1	..	2
Kirkmanshulme and Levenshulme	1	7	2	..	..	..	1	..	..	..	4	..	..
Totals	46	888	283	5	34	15	84	1	35	21	235	51	124

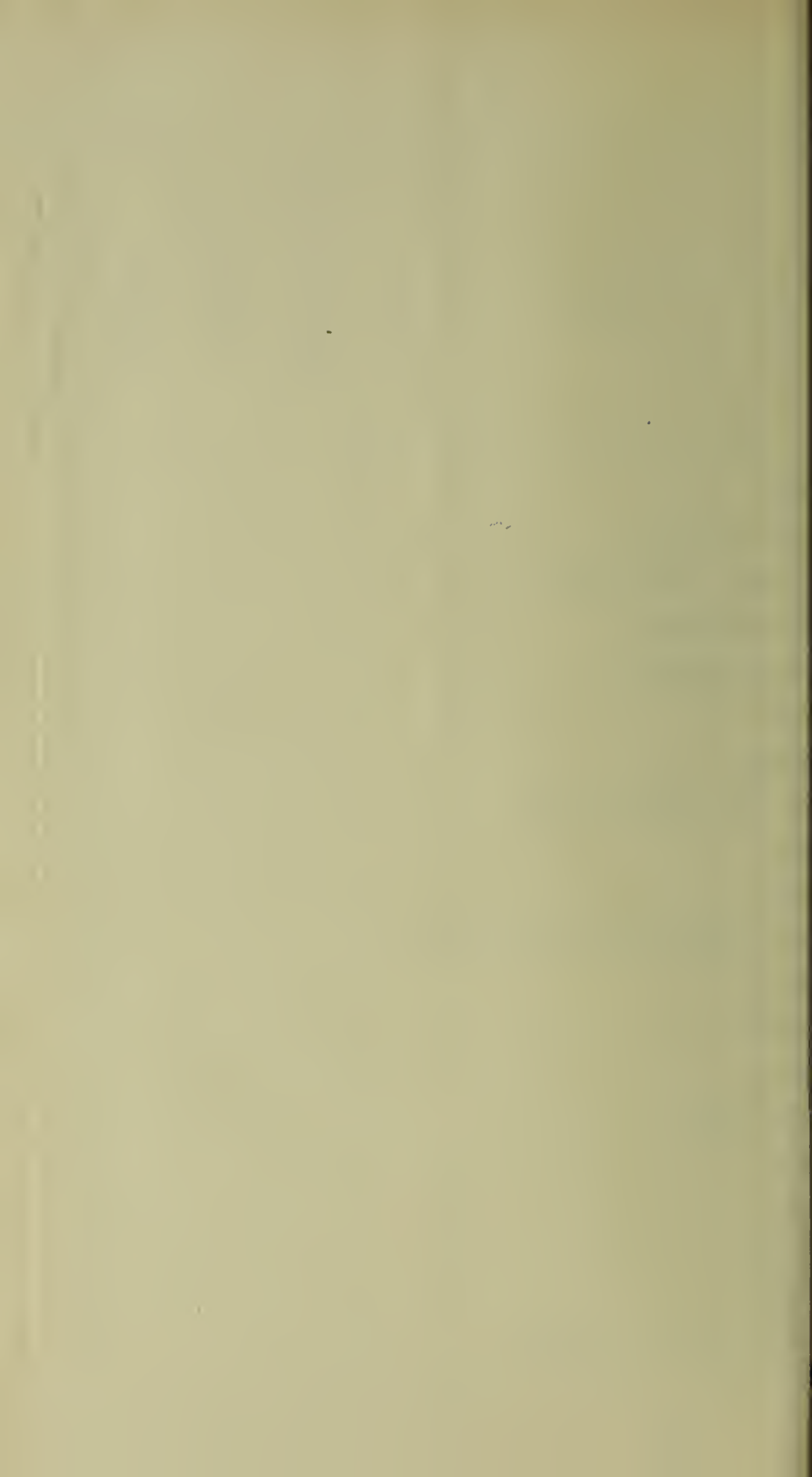


TABLE 5.
SUMMER DIARRHŒA. CASES VISITED BY THE HEALTH VISITORS, 1922.

Year	Total Number of Cases Visited	Number of Cases Occurring in			Districts																				Number Affected under one year of age	Method of Feeding at Onset of Illness			Deaths				
		July (15th-31st)	August	September	Ancoats	London Road	St. George's and Monsall	Ardwick	Hulme and Deansgate	Chorlton-upon-Medlock	Beswick	Bradford	West Gorton and Longsight	Gorton	Openshaw	Miles Platting	Newton	Blackley	Harpurhey	Special Districts	Clayton	Moston	Moss Side	Rusholme		Kirkmanshulme, Etc.	Withington	Breast	Mixed	Hand	Total Number	Number under one year of age	Number under four months of age
1917	636	115	335	166	116	18	131	43	90	31	34	39	32	12	18	11	15	..	..	..	..	..	..	..	..	..	325	68	64	194	129	90	..
1918	313	51	179	83	42	16	28	32	77	23	11	7	5	29	19	10	12	1	..	1	..	..	..	..	..	..	175	43	31	101	42	28	..
1919	174	23	108	43	17	13	17	17	39	17	1	19	5	7	5	3	6	2	1	..	..	..	..	..	..	..	100	24	22	54	53	42	32
1920	216	27	78	111	35	8	22	22	41	12	3	6	8	25	7	3	9	1	4	10	..	..	..	..	..	..	124	34	20	70	52	41	18
1921	730	152	357	221	76	30	119	63	128	35	9	82	19	37	15	12	16	3	21	42	15	11	1	..	..	..	387	96	65	226	117	96	42
1922	71	15	31	25	4	1	14	7	10	8	2	3	3	3	1	..	3	..	2	10	..	..	..	..	..	..	51	16	7	28	17	14	9

TABLE 2.—SHOWING THE WORK DONE BY THE HEALTH VISITORS DURING THE YEAR 1921 AND COMPARING IT WITH THE WORK DONE IN 1918, 1919, 1920, AND 1921.

Classification of Visits	Number of Visits Paid in 1918	Number of Visits Paid in 1919	Number of Visits Paid in 1920	Number of Visits Paid in 1921	Number of Visits Paid in 1922
Primary visits to Infants	9,078	10,861	15,532	17,677	14,838
Subsequent visits to Infants	48,543	55,201	55,941	66,640	50,699
Subsequent visits to Children over 1 year of age and under 5 years	36,540	58,936	71,479	99,786	106,021
Other visits <i>re</i> Infants and Young Children	2,203	1,588	1,270	1,182	725
House to House Inspections .. .. .	....	4,475	3,701	....	....
Special visits <i>re</i> Sanitary Defects ..	1,574	1,486	1,889	1,547	1,629
Visits <i>re</i> Limewashing	1,783	2,258	2,284	2,778	2,679
Primary visits to Verminous Cases (including Scabies)	966	631	704	631	471
Subsequent visits to Verminous Cases	2,771	2,328	1,724	2,085	1,621
Measles Investigations	8,026	8,509	9,700	11,124	17,909
Subsequent visits	15,516	13,792	17,710	1,639	26,160
German Measles Investigations ..	532	109	98	249	91
Subsequent visits	665	95	119	408	149
Whooping Cough Investigations ..	5,714	970	2,302	4,114	2,111
Subsequent visits	14,002	1,422	4,726	8,165	3,574
Visits <i>re</i> Relief	1,020	1,197	406	478	509
Visits <i>re</i> Influenza	2,252	5,636	519	235	970
Visits <i>re</i> Pneumonia .. .. .	....	653	3,058	4,685	7,396
Visits " Out "	20,420	18,697	19,571	21,595	17,270
Special Investigations .. .. .	....	....	495	3,739	248
Total visits	171,605	189,062	213,228	238,757	255,070
Number of Health Visitors	Average for year 40 (4 Health Visitors doing only Measles and Whooping Cough Cases)	45 (4 Health Visitors doing only Measles and Whooping Cough Cases)	52 (4 Health Visitors doing only Measles, Whooping Cough, and Pneumonia Cases)	52 (4 Health Visitors doing only Measles, Whooping Cough, and Pneumonia Cases.)	52 (4 Health Visitors doing only Measles, Whooping Cough, and Pneumonia Cases)
Number of Districts worked	38	41	45 (7 temporary Measles. Visitors also worked for three months)	46	47 (3 temporary Measles Visitors also worked for four months)

REPORT ON THE WORK OF THE MIDWIVES' DEPARTMENT FOR THE YEAR 1921.

BY DR. M. A. C. DOUGLAS DRUMMOND.

The number of midwives who gave notice of their intention to practice in Manchester during 1922 was 185 ; of these, 21 reside without the City. In the course of the year one midwife died, nine removed from the area, and three gave up work.

From returns made by the midwives, 9,578 births were attended by them. The total registered births in the City numbered 15,855. It will be seen from these figures that about 60 per cent. were attended by midwives, as against 68 per cent. in 1921.

INSPECTION OF MIDWIVES.

672 visits were paid, and on 331 occasions midwives were interviewed at the Public Health Office. In 2 instances the houses were found dirty, and 6 bags were unsatisfactory and incomplete. Eleven registers were found to be not entered up to date. In 1921 the corresponding figures were 530 visits, 207 interviews, 3 dirty houses, 8 unsatisfactory bags, and 6 incomplete registers.

PUERPERAL INFECTION.

During the year 1922, against an average of 108 cases in the seventeen years 1905-21, 130 cases of puerperal infection were notified, of which 23 occurred after abortion or premature labour. Of the abortions, 8 were at the second or third months of gestation, 3 at the fourth month, 3 at the fifth, 4 at the sixth, 4 at the seventh, and 1 during the eighth month of pregnancy.

The total fatal cases numbered 33, of which 10 were connected with premature labours, as against an average of 24 in the seventeen years 1905-21.

The attack-rate per 1,000 births was 8.20, against 7.84 in 1921, whilst the case fatality per cent. was 25.4, against 22.2, the average for the years 1905-1921.

The mortality from puerperal fever per 1,000 births was 1.89, against an average of 1.43 in the preceding 10 years.

Table relating to the cases of puerperal fever attended either by midwives or doctors during 1922 as compared with the average of the 17 years 1905-1921 : —

Years	Number of Cases attended by					
	Midwives		Doctors		Midwife and Doctor	
	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths
1905-1921 ...	40	6	65	16	18	4
1922	53	12	65	20	12	1

Out of 130 cases notified, 17 patients were nursed at home, and 14 recovered ; 98 cases were removed to Monsall Hospital, and 74 recovered, the case mortality being 24.5 per cent. The remaining 15 cases were treated in other institutions, and 9 recovered.

Subsequent visits were paid to 84 women who recovered, and with the exception of 9 all were in good health.

The particulars as to the character of the labour and the results for 1922 are :—

	No. of Cases	Recovery	Death
Normal full term labour	66	51	15
Abnormal full term labour	41	32	9
Abortion or premature... ..	23	14	9

SUSPENSION OF MIDWIVES.

Two hundred and three suspensions of midwives from their work occurred, chiefly on account of their having been in attendance on cases of puerperal infection or other septic conditions.

RECORDS OF CALLING IN MEDICAL AID.

During the year 1922 the number of medical records received was 3,472, as compared with 4,033 in the previous year. The numbers under the various reasons given for having advised medical aid correspond to those in previous years (see table herewith).

NUMBER OF CASES OCCURRING IN 1922 IN WHICH THE MIDWIFE ADVISED THAT A REGISTERED MEDICAL PRACTITIONER SHOULD BE SENT FOR (RULE E). ALSO THE NUMBER OF APPLICATIONS FROM MEDICAL PRACTITIONERS FOR PAYMENT OF THEIR FEES FOR ATTENDING CERTAIN EMERGENCY CASES.

Period	Medical aid called in on account of the following causes, as stated by the Midwife	Total	* Application for Fees
Pregnancy	Abortions, miscarriages	23	4
	Deformed pelvis	16	2
	Loss of blood	18	4
	Other unusual features of pregnancy	105	1
Labour	Head—Malpositions	33	10
	Breech { In primiparæ	12	6
	{ In multiparæ	5	—
	{ Para not stated	31	12
	Presentations { Transverse	10	5
	{ Funis	27	17
	{ Unable to make out	12	5
	{ Footling	8	8
	{ Hand	10	7
	Tedious labour { Forceps used	—	188
	{ No record as to forceps	198	26
	Placenta { Retained	42	21
	{ Adherent	40	20
	{ Prævia	7	3
Lying-in	Membranes retained	18	3
	Rupture of perineum	742	245
	Hæmorrhage .. { Ante partum	62	28
	{ Post partum	31	21
	{ Hæmorrhage—3rd stage	9	1
	Convulsions	17	9
	Complications	44	24
	Premature labour	20	5
	Abdominal swellings	1	—
	Foul-smelling discharges	2	1
Newly-born Child	Secondary post-partum hæmorrhage	4	4
	Rigor	1	1
	Rise of temperature above 100.4° F	85	16
	Unusual swelling of breasts	9	1
	Progress unsatisfactory or complications	293	42
	Injuries received during birth	1	—
	Obvious malformations	67	7
Newly-born Child	Tongue-tied	47	1
	Feebleness of child	157	33
	Inflammation of eyes and eyelids	471	40
	Skin eruption	89	10
	Illness from prematurity	91	13
	Jaundice	54	7
	Inflammation about the umbilicus	10	—
	Unspecified or complications	196	14
	Convulsions	45	4
TOTALS		3,472	872

* These applications have been classified according to the conditions requiring treatment found by the medical practitioner.

MIDWIVES ACT, 1918—MEDICAL ASSISTANCE TO MIDWIFE
IN CASE OF EMERGENCY.

Under Section 14 (1) of this Act a midwife is required, in case of any emergency as defined in the rules, to call in to her assistance a registered medical practitioner, and the local supervising authority is required to pay such medical practitioner a fee as prescribed by the Ministry of Health. The local supervising authority has power to recover the fee from the patient or husband unless they are unable by reason of poverty, to pay such fee.

Arising out of this Section, 872 applications were received from medical practitioners for payment of their fees. Investigations were made as to the circumstances of the families concerned, and it was found that in 359 instances the incomes were below the scale, 416 appeared to be in a position to pay the fees themselves, and 24 paid the fees direct to the doctor. The remaining 73 did not fulfil the conditions. Thus the local supervising authority paid the medical practitioners in 775 instances, and endeavoured to recover the fees in 416 of these.

The total sum paid during the year ending March 31st, 1923, was £1,097 1s. 6d., and of this £331 12s. 2d. was recovered from those people who were in a position to pay.

Three applications for fees were received from midwives for attendance on the confinements of women in special need of assistance. Two fees were paid, the total amount being £1 5s. 0d.

STILL-BIRTHS.

The total number of still-births reported to the Office during the year was 593, as against 605 in the previous year. Out of the 593 still-births, 344 occurred in the practice of doctors (these are ascertained from the Cemeteries' returns) and 246 in the practice of midwives, whilst 3 others were unattended. The percentage of still-born children is 3·7; in 1921 it was 3·4.

The summary of causes to which it seemed reasonable to credit the still-births in the practice of midwives shows the principal numbers to be :—

Definite history of ill-health of the mother	...	...	...	...	59
Accident to mother before confinement	...	...	...	...	39
Monstrosities	...	...	...	...	12
Shock	...	...	...	...	14
Probable drug-taking to procure abortion	...	...	...	...	4
Breech presentations, full time and premature	...	...	...	...	21
Employment of mother	...	...	...	...	7
Ante-partum hæmorrhage	...	...	...	...	10
Insufficient help at delivery	...	...	...	...	19
Probable specific disease from family history	...	...	...	...	15
Twin pregnancies—full time and premature	...	...	...	...	14

The still-birth rate was highest in Ancoats, St. George's, Ardwick, and Openshaw.

DEATHS OF NEW-BORN CHILDREN.

Notifications of 18 deaths of new-born children before a medical practitioner could be obtained were received and investigated. In 15 instances inquests were held. In 3 cases "Want of attention at birth" was the verdict, Hæmorrhage from Umbilical Cord 1, Natural Causes 4, and in 7 "Accidental suffocation." In 3 cases the City Coroner did not consider it necessary to hold inquests.

- DEATH OF THE MOTHER.

No cases of death of the mother before a medical practitioner could be obtained were notified during the year.

CHARGES OF MALPRACTICE, NEGLIGENCE, OR MISCONDUCT.

During the year two midwives were summoned to appear before the Maternity and Child Welfare Sub-Committee to answer charges of negligence, both charges were found proved, and the reports were referred to the Central Midwives' Board.

The charges were: (a) failing to advise medical aid for a case of serious rupture of the perineum. This midwife was cautioned by the Board; (b) insobriety whilst in attendance on a patient. She was cautioned, and reports at the end of three and six months as to her conduct were requested.

WORK OF THE SPECIAL NURSES.

The work done by the nurses during the year 1922 has been tabulated, and is as follows:—

Still-births investigated	269
Deaths of newly-born infants investigated	18
Cases of Puerperal Fever nursed at home	17
Nursing visits paid to 17 cases and to 26 patients with raised temperatures	354
Old Puerperal Fever cases investigated to ascertain subsequent histories	124
New Puerperal Fever cases investigated to ascertain histories ...	111
Nursing visits paid to cases of Mammary Abscess	200
" " " " Phlebitis	158
" " " " Septic Skin Affections in mothers .	18

Carried forward

	Ardwick	Rosa- mond St. W.	Lower Moss Lane	Openshaw	Cheetham Hill	Newton Heath	Har- purhey	Ancoats	Hyde Road	Collyhurst	TOTAL
1. RICKETS	84	58	47	156	39	64	20	74	61	113	716
2. ATROPHIES—											
Post Infective	2	0	2	5	0	4	0	1	1	10	25
Post Fracture	0	0	0	0	1	3	0	0	1	0	5
General Malnutrition.	14	19	9	23	17	18	17	22	21	23	183
Congenital... ..	0	1	1	0	1	3	2	0	2	2	12
3. PARALYSIS—											
Congenital	1	4	2	5	3	1	0	1	4	4	25
Infantile	0	2	0	5	0	2	3	1	1	4	18
Other conditions ...	4	1	0	0	0	1	0	0	1	2	9
4. CONSTIPATION	2	0	1	4	3	1	3	0	2	2	18
5. OTHER CONDITIONS—											
Birth Injuries	1	0	0	1	0	1	1	0	1	1	6
Torticollis... ..	2	3	1	4	2	4	2	3	9	4	34
Scoliosis	0	0	0	1	0	1	0	0	1	1	4
Lordosis	0	1	0	2	1	1	0	1	2	2	10
Talipes	1	2	1	4	2	3	1	2	5	4	25
Contracture	0	0	1	1	0	1	0	1	3	1	8
Flat Feet, etc.... ..	4	4	2	4	4	2	3	7	9	5	44
TOTAL	115	95	67	215	73	110	52	113	124	178	1,142

STATEMENT SHOWING NUMBER OF CASES RECEIVING MILK, AMOUNT SOLD, COST, AND MODE OF DISTRIBUTION.

		CENTRES	70-72, Rosamond Street West	1-3, Manipur Street	153, Cheetham Hill Road	135, Pollard Street	93, Hamilton Street	239, Hyde Road, West Gorton	40-42, Lower Moss Lane	45, Higher Ardwick	Jubilee Schools, Harpurhey	686 8, Oldham Rd., Newton	375, Abbey Hey Lane	Elm Street School	Didsbury	Levenshulme	Rusholme	Chorlton- cum- Hardy	TOTAL
Number of New Cases put on Milk	Fresh Milk	1st Quarter ...	26	167	28	30	72	49	46	48	16	26	17	9	4	6	10	—	554
		2nd " ...	37	228	14	66	79	113	32	40	24	30	31	7	—	3	2	—	706
		3rd " ...	42	155	13	52	81	77	36	55	22	15	14	11	2	4	2	2	583
		4th " ...	40	151	40	91	85	47	16	44	28	22	12	8	—	7	6	—	606
		Total, 1922	154	701	95	239	317	286	130	187	90	93	74	35	6	20	20	2	2,449
		Total, 1921	120	575	117	103	203	133	122	148	82	61	23	2	2	10	23	—	1,724
	Dried Milk	1st Quarter ...	19	51	1	24	52	28	16	30	16	24	7	2	—	2	2	—	274
		2nd " ...	19	58	8	23	48	44	13	12	12	23	7	6	—	2	—	—	275
		3rd " ...	17	23	3	15	39	17	14	18	19	12	8	3	—	—	—	—	188
		4th " ...	12	39	15	15	44	25	6	17	13	16	7	—	—	3	—	—	212
		Total, 1922	67	171	27	77	183	114	49	77	60	75	29	11	—	7	2	—	949
		Total, 1921	100	242	66	132	116	95	54	68	95	46	24	7	—	4	9	—	1,064
Total Number having Milk	Fresh Milk	1st Quarter ...	438	2,352	305	354	668	436	451	558	256	185	138	41	68	35	155	—	6,440
		2nd " ...	563	3,310	308	711	954	1,370	465	716	329	315	423	68	66	35	167	—	9,800
		3rd " ...	727	2,964	366	719	925	1,409	435	615	341	258	404	98	52	29	166	2	9,510
		4th " ...	990	3,661	507	1,127	1,200	1,558	403	746	433	366	529	139	55	57	175	37	11,983
		Total, 1922	2,718	12,287	1,486	2,911	3,747	4,773	1,754	2,635	1,359	1,124	1,494	346	241	156	663	39	37,733
		Total, 1921	1,956	7,929	2,141	1,587	2,050	1,913	1,537	2,064	921	720	471	17	147	344	765	—	24,562
	Dried Milk	1st Quarter ...	554	1,028	136	543	697	673	274	450	351	234	253	38	—	38	25	—	5,294
		2nd " ...	600	1,239	159	603	771	855	291	499	280	333	289	32	—	29	21	—	6,001
		3rd " ...	482	1,028	139	509	713	593	322	493	246	287	178	65	—	32	24	—	5,111
		4th " ...	491	1,114	194	564	831	569	268	498	229	283	173	56	—	43	40	—	5,353
		Total, 1922	2,127	4,409	628	2,219	3,012	2,690	1,155	1,940	1,106	1,137	893	191	—	142	110	—	21,759
		Total, 1921	2,296	3,599	860	2,733	1,877	1,928	1,192	891	1,580	930	557	33	1	58	74	—	18,609
Amount of Milk being sold (Pints or Lbs.)	Fresh Milk	1st Quarter ...	2,877	16,240	2,128	2,427	4,670	3,931	3,186	3,906	1,778	1,214	990	287	469	245	1,078	—	44,526
		2nd " ...	4,074	23,191	2,142	5,019	6,692	9,597	3,260	4,978	2,303	2,205	2,954	476	462	245	1,176	—	68,774
		3rd " ...	5,106	20,700	2,646	5,201	6,513	10,003	3,069	4,336	2,544	1,820	2,887	707	364	203	1,176	14	67,289
		4th " ...	6,829	25,595	3,549	7,812	8,398	10,928	2,821	5,229	3,149	2,562	3,782	989	385	399	1,218	259	83,604
		Total, 1922	18,886	85,726	10,465	20,459	26,273	33,559	12,336	18,449	9,774	7,801	10,613	2,459	1,680	1,092	4,648	273	264,493
		Total, 1921	15,246	61,519	17,779	12,783	16,618	15,365	12,412	16,177	6,890	5,895	3,399	119	1,185	2,570	5,903	—	193,860
	Dried Milk	1st Quarter ...	556	1,027	136	545	697	674	274	445	351	234	275	60	—	61	27	—	5,362
		2nd " ...	596	1,154	159	604	774	851	290	494	279	353	287	63	—	59	22	—	5,985
		3rd " ...	482	1,028	141	509	727	593	331	494	248	287	179	82	—	59	24	—	5,184
		4th " ...	491	1,114	194	564	831	572	267	498	229	283	173	84	—	39	40	—	5,379
		Total, 1922	2,125	4,323	630	2,222	3,029	2,690	1,162	1,931	1,107	1,157	914	289	—	218	113	—	21,910
		Total, 1921	2,850	4,274	1,061	3,423	2,300	2,388	1,418	1,037	1,820	1,335	670	40	12	101	110	—	22,839
Total Cost to Corporation	Fresh Milk	1st Quarter ...	£ s. d. 25 18 3	£ s. d. 136 12 6	£ s. d. 20 0 1	£ s. d. 21 18 11	£ s. d. 36 18 6	£ s. d. 25 15 7	£ s. d. 25 16 10	£ s. d. 36 10 4	£ s. d. 16 17 9	£ s. d. 9 7 3	£ s. d. 7 12 9	£ s. d. 1 19 10	£ s. d. 4 2 11	£ s. d. 2 2 6	£ s. d. 8 12 5	£ s. d. —	£ s. d. 380 6 5
		2nd " ...	20 0 9	113 12 8	10 19 4	23 13 8	31 14 8	44 4 10	15 6 10	26 18 3	12 5 7	10 10 0	13 4 10	2 8 5	2 18 4	1 7 0	6 7 10	—	335 13 0
		3rd " ...	29 0 10	116 15 10	18 9 8	27 19 4	37 7 4	53 11 3	17 3 11	29 11 2	16 10 3	10 12 10	15 8 11	4 3 0	2 11 0	1 11 1	7 1 4	0 2 3	388 0 0
		4th " ...	47 18 1	177 18 5	29 10 7	50 12 6	57 19 9	76 14 7	22 8 0	38 6 3	22 9 2	22 4 5	24 18 10	7 7 8	3 7 6	3 17 7	9 11 7	2 10 10	597 15 9
		Total, 1922	122 17 11	544 19 5	78 19 8	124 4 5	164 0 3	200 6 3	80 15 7	131 6 0	68 2 9	52 14 6	61 5 4	15 18 11	12 19 9	8 18 2	31 13 2	2 13 1	1,701 15 2
		Total, 1921	225 7 2	898 3 6	319 15 3	184 4 6	268 7 6	231 0 4	191 6 2	235 4 0	99 18 1	85 14 11	45 16 6	0 18 4	14 11 9	29 5 1	70 19 0	—	2,900 12 1
	Dried Milk	1st Quarter ...	33 4 2	66 3 10	10 2 5	29 17 4	42 9 2	39 14 0	17 2 3	27 18 8	20 19 11	14 18 9	17 7 9	3 12 7	—	4 14 4	1 9 2	—	329 14 4
		2nd " ...	33 8 4	68 1 1	10 8 1	34 4 11	42 11 9	47 16 0	16 13 10	28 1 7	14 17 11	20 5 6	14 17 3	3 4 3	—	3 18 0	2 2 2	—	340 10 8
		3rd " ...	26 16 3	54 17 11	10 13 1	28 5 3	40 13 1	29 17 8	17 1 11	28 17 10	13 1 3	17 2 10	9 12 6	4 8 0	—	3 13 4	1 9 4	—	286 10 3
		4th " ...	27 6 6	61 3 6	13 7 8	30 2 3	48 2 6	32 19 7	13 15 11	26 18 1	12 4 1	16 10 0	8 12 11	6 6 6	—	2 7 8	2 2 2	—	301 19 4
		Total, 1922	120 15 3	250 6 4	44 11 3	122 9 9	173 16 6	150 7 3	64 13 11	111 16 2	61 3 2	68 17 1	50 10 5	17 11 4	—	14 13 4	7 2 10	—	1,258 14 7
		Total, 1921	221 7 10	346 10 6	87 12 6	245 0 4	192 14 3	178 5 11	115 18 1	70 12 8	148 3 11	88 12 0	48 1 5	3 15 4	1 11 4	9 17 10	9 17 8	—	1,768 1 7
Total Cost, Fresh and Dried Milk	1922		243 13 2	795 5 9	123 10 11	246 14 2	337 16 9	350 13 6	145 9 6	243 2 2	129 5 11	121 11 7	111 15 9	33 10 3	12 19 9	23 11 6	38 16 0	2 13 1	2,960 9 9
	1921		446 15 0	1,244 14 0	407 7 9	429 4 10	461 1 9	409 6 3	307 4 3	305 16 8	248 2 0	174 6 11	93 17 11	4 13 8	16 3 1	39 2 11	80 16 8	—	4,668 13 8

STATEMENT OF WORK DONE AT THE CHILD WELFARE CENTRES DURING THE YEAR 1922.
(PREPARED FROM THE RETURNS RECEIVED FROM THE CENTRES.)

				NUMBER OF BABIES WEIGHED												NUMBER OF NEW CASES												CONSULTATIONS												SPECIALISTS' CONSULTATIONS			TREATMENT CASES										
				72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	135, Pollard Street, Ancoats	93, Hamilton Street, Collyhurst	230, Hyde Road, West Gorton	153, Cheetham Hill Road	42, Lower Moss Lane, Hulme	45, Higher Ardwick	375, Abbey Hey Lane, Gorton	686, Oldham Road, Newton Heath	Jubilee Schools, Harpurhey	Elm Street	Holy Name	Total	72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	135, Pollard Street, Ancoats	93, Hamilton Street, Collyhurst	230, Hyde Road, West Gorton	153, Cheetham Hill Road	42, Lower Moss Lane, Hulme	45, Higher Ardwick	375, Abbey Hey Lane, Gorton	686, Oldham Road, Newton Heath	Jubilee Schools, Harpurhey	Elm Street	Holy Name	Total	72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	Total	72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	42, Lower Moss Lane, Hulme	45, Higher Ardwick	Total														
January—March	...	...	...	3370	6461	2430	3684	3906	2197	2147	3428	1079	2209	2550	571	239	34271	253	346	156	212	224	115	125	179	63	123	134	50	20	2000	1463	2735	1229	1925	2064	1168	1083	1402	486	1200	1169	278	179	16381	518	505	1023	331	1835	312	525	3003
April—June	...	...	...	3066	6817	2461	3450	4209	2034	1785	3110	838	2061	2309	466	167	32773	204	354	125	184	214	129	99	155	45	90	104	23	32	1758	1407	2504	1106	1755	1938	1111	898	1296	360	1122	1063	246	167	14963	380	457	837	263	2098	374	651	3386
July—September	...	...	...	4187	7282	2831	3646	4330	2332	2396	3633	1201	2381	2673	570	299	37761	253	322	169	227	259	138	124	180	51	113	137	38	38	2049	1630	2631	1283	1939	2032	1122	1114	1435	509	1268	1251	266	268	16748	444	474	918	314	2286	417	705	3722
October—December	...	...	...	3937	7164	2893	3581	4044	2203	2174	3526	1113	2466	2327	548	348	36324	177	305	157	190	210	120	78	156	26	102	84	36	19	1660	1585	2615	1249	1763	2045	1083	1018	1391	493	1217	968	254	172	15853	372	459	831	557	2387	337	819	4100
Total	...	...	...	14560	27724	10615	14361	16489	8766	8502	13697	4231	9117	9859	2155	1053	141129	887	1327	607	813	907	502	426	670	185	428	459	147	109	7467	6085	10485	4867	7372	8079	4484	4113	5524	1848	4807	4451	1044	786	63945	1714	1895	3609	1465	8606	1440	2700	14211
Total 1921	...	...	...	13959	24986	9638	13732	15471	9564	8082	12659	4314	8623	9722	1030	674	132454	1008	1473	688	882	948	637	535	665	211	506	540	104	82	8179	5387	10287	4922	6613	7791	4937	4003	5297	1865	4423	4054	746	659	60984	1810	2037	3847	1360	5255	1145	1187	8947

				MASSAGE												VISITS OF SUPERINTENDENTS AND ASSISTANTS												INDIVIDUALS WHO ATTENDED THE CENTRES												PRE-MATERNITY CLINICS												DENTAL CLINIC		VENEREAL DISEASE CLINICS		
				72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	135, Pollard Street, Ancoats	93, Hamilton Street, Collyhurst	230, Hyde Road, West Gorton	153, Cheetham Hill Road	42, Lower Moss Lane, Hulme	45, Higher Ardwick	686, Oldham Road, Newton Heath	Jubilee Schools, Harpurhey	Total	72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	135, Pollard Street, Ancoats	93, Hamilton Street, Collyhurst	230, Hyde Road, West Gorton	153, Cheetham Hill Road	42, Lower Moss Lane, Hulme	45, Higher Ardwick	375, Abbey Hey Lane, Gorton	686, Oldham Road, Newton Heath	Jubilee Schools, Harpurhey	Elm Street	Holy Name	Total	72, Rosamond Street West, C.-on-M.	1, Manipur Street, Openshaw	135, Pollard Street, Ancoats	93, Hamilton Street, Collyhurst	230, Hyde Road, West Gorton	153, Cheetham Hill Road	42, Lower Moss Lane, Hulme	45, Higher Ardwick	93, Hamilton Street, Collyhurst	Total	72, Rosamond Street West, C.-on-M.	42, Lower Moss Lane, Hulme	45, Higher Ardwick	Total														
January—March	...	...	...	253	496	119	467	298	245	130	230	268	166	2672	220	293	407	556	501	287	344	138	98	259	185	62	1137	4487	1451	2598	994	1502	1579	929	856	1231	473	933	1031	226	392	14195	64	100	9	19	31	32	32	57	36	380	117	117	194	311
April—June	...	...	...	240	446	129	480	306	234	123	239	240	151	2588	172	208	513	200	359	332	266	109	163	248	149	98	1193	4010	1384	2747	1038	1383	1749	932	752	1179	505	919	966	190	356	14100	59	77	15	30	55	35	38	68	50	427	111	96	197	293
July—September	...	...	...	303	526	143	513	324	268	210	195	260	168	2910	271	316	444	274	376	359	394	154	109	380	180	86	1109	4452	1637	2796	1012	1429	1773	1025	869	1345	484	1007	1066	217	454	15114	61	65	35	30	48	32	24	47	36	378	99	98	194	292
October—December	...	...	...	254	452	143	464	281	223	144	314	257	117	2649	160	165	353	193	325	317	267	68	56	270	154	72	881	3281	1582	2856	1175	1404	1835	1034	803	1400	477	1039	947	232	363	15207	61	85	48	36	36	40	36	46	33	421	125	88	214	302
Total	...	...	...	1050	1920	534	1924	1209	970	607	978	1025	602	10819	823	982	1717	1223	1561	1295	1271	469	126	1157	668	318	4320	16230	6051	10997	4219	5718	6936	3920	3340	5155	1939	3898	4010	865	1565	58616	245	327	107	115	170	139	130	218	155	1606	452	399	799	1198
Total 1921	...	...	...	1046	2011	608	1962	1219	782	171	1142	977	598	10759	817	1273	1000	1095	948	991	1074	882	956	564	238	3478	4467	17783	6189	10200	3826	5571	6260	4270	3329	4622	1739	3581	3732	1606	1361	56301	189	225	79	84	90	124	116	94	55	1050	304	552	719	1271



MASSAGE REPORT FOR YEAR ENDING DECEMBER 31ST, 1922.

Centre	Number of Cases Treated	Discharges	Total Attendances	Cases Waiting for Treatment
Ardwick	115	72	978	6
Rosamond Street West	95	73	1,050	6
Lower Moss Lane, Hulme	67	38	607	17
Openshaw	215	147	1,920	18
Cheetham Hill	73	48	970	14
Newton Heath	110	75	1,025	1
Harpurhey	52	36	602	4
Ancoats... ..	113	91	534	41
Hyde Road, West Gorton	124	50	1,209	4
Collyhurst	178	93	1,924	—
TOTALS	1,142	723	10,819	111

DISCHARGES CLASSIFIED IN "RESULTS OF TREATMENT."

	Ardwick	Rosa- mond St. W.	Lower Moss Lane	Openshaw	Cheetham Hill	Newton Heath	Har- purhey	Ancoats	Hyde Road, Gorton	Collyhurst	TOTALS
Cured... ..	9	2	3	27	7	6	3	15	11	9	92
Much Improved ...	16	37	11	30	3	11	16	17	4	20	165
Improved... ..	33	19	13	67	25	31	12	25	17	38	280
Nil	4	7	3	7	4	7	2	9	8	13	64
Transfers	0	4	4	6	3	8	1	10	2	12	50
Irregular Attendances	10	4	4	10	6	12	2	15	8	1	72
TOTALS	72	73	38	147	48	75	36	91	50	93	723

OPHTHALMIA NEONATORUM.

BY DR. M. A. C. DOUGLAS DRUMMOND.

During the year 1922, 760 cases of Inflammation of the Eyes were notified from various sources, and visited by the Eye Nurses.

Of these, 156 were cases of disease in children and adults. 105 suffered from simple conjunctivitis, 11 from blepharitis, 9 from corneal ulcer, 6 from keratitis, 1 from iritis, and 1 from dacryocystitis. Seven children had nebula of cornea, 6 strabismus, 5 epiphora. Two children had congenital cataract, 1 traumatic cataract, 1 congenital coloboma iris with nystagmus, and 1 pterygium.

604 cases of Inflammation of the Eyes of newly-born children occurred. 322 were notified by the medical attendants (either private or at the Royal Eye Hospital) as cases of ophthalmia neonatorum. Of these 59 were considered to be cases of simple conjunctivitis, leaving 263 true cases of ophthalmia neonatorum. The remaining 282 cases were notified by midwives.

Swabs were taken from the conjunctiva in all cases where possible, and sent to the Public Health Laboratory to be examined bacteriologically for the presence of gonococcus. 161 swabs were examined, and of these 26 gave a positive result.

Table A shows the distribution of cases, both as regards the districts in which they occurred and the month of the year. The cases in which the cornea was affected are also shown in this table.

The largest number of cases of true ophthalmia neonatorum occurred in St. George's, Hulme, Ardwick, and Chorlton-upon-Medlock.

The monthly rate of notified cases varies considerably, and there seems no special reason for the rise and fall in numbers. April heads the list, followed by March, June, and July.

Table C shows the day of onset, the attendant at birth, and the place of treatment.

The greatest number of onsets was on the first day of life, and in over one-half of the cases the first signs of disease appeared during the first five days.

205 cases were treated by private doctors, and the remainder, 118, by the doctors of the Royal Eye Hospital.

In 14 instances there was involvement of the cornea, and 4 of these cases were admitted into the Royal Eye Hospital.

TABLE C—1922. OPHTHALMIA NEONATORUM.

	Interval in days between birth and onset										Attended by				Where treated			No Doctor	Total	
											Midwife	Doctor	Midwife and Doctor	Total	Home	Out-Patients at Hospital	In-Patients at Hospital			
	1	2	3	4	5	6	7	8	9	10+										Total
Notified { True ... Not True	58	28	21	18	11	25	32	24	17	29	263	203	49	11	263	151	113	5	0	263
	10	5	7	6	4	8	3	1	4	11	59	51	6	2	59	54	5	0	0	59
Not notified	52	30	30	22	22	30	29	20	23	24	282	263	3	16	282	251	7	0	24	282

Total notified cases { True = 263
Not True = 59 } = 604

Total non-notified cases = 282

The number of cases with corneal involvement was 14 in all.

11 have completely recovered, 2 have faint nebula which are clearing, 1 died during treatment.

TABLE D.—CASES WITH INVOLVEMENT OF THE CORNEA.

Right Eye	.. .. .	3
Left Eye	.. .. .	5
Both Eyes	.. .. .	6

—
14
=

Table E shows the results of the 263 cases of *true* ophthalmia neonatorum, and 282 of conjunctivitis in *newly-born infants* :—

	Complete Recovery	One Eye Lost, Other Normal	One Eye Lost, the other Damaged	Both Eyes Lost	Both Eyes Damaged	One Eye Damaged	Death before recovery	Removed before recovery
True Ophthalmia Neonatorum	251	..	..	..	..	2	9	1
Conjunctivitis..	333	..	..	..	..	..	6	2
	584	..	..	..	..	2	15	3

Table F showing the total number of cases of ophthalmia and conjunctivitis in newly-born infants, and the percentage with corneal complications, 1911-1922 :—

Year	No. of Cases	Percentage with Corneal complications
1911	525	7.23
1912	667	11.39
1913	573	12.04
1914	681	9.25
1915	642	7.79
1916	620	6.13
1917	539	6.86
1918	567	8.64
1919	698	4.73
1920	974	4.83
1921	921	2.28
1922	760	1.84

TABLE A, 1922.—NOTIFIED CASES OF OPTHALMIA NEONATORUM AND NOTIFIED CASES FOUND TO BE TRUE OPTHALMIA NEONATORUM;
ALSO CASES REPORTED BY MIDWIVES BUT CONSIDERED TO BE CASES OF CONJUNCTIVITIS.

Month of Year	January		February		March		April		May		June		July		August		September		October		November		December		Total		Cases of Conjunctivitis reported by Midwives	Cases with Corneal Complications
	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases	Not true Notified Cases	True Cases		
Ancoats	1	1	1	1	2	2	—	—	2	3	1	2	—	1	—	2	—	2	—	2	—	4	—	—	7	20	11	2
Central	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	1	
St. George's	1	1	3	1	4	3	8	1	3	4	1	4	4	3	1	5	—	3	2	4	1	5	2	2	30	36	80	—
Cheetham	—	2	—	—	—	1	2	3	—	1	—	3	—	2	—	1	—	4	—	—	—	1	—	1	2	19	12	—
Crumpsall	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Blackley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	3	—
Harpurhey	1	1	—	1	—	—	—	1	—	—	—	2	—	2	—	1	—	—	—	1	—	—	1	—	2	9	18	—
Moston	—	—	—	1	—	—	—	—	—	—	—	2	—	—	—	1	—	—	—	—	—	—	—	—	—	4	2	—
Newton	—	—	—	1	1	1	—	1	—	—	—	1	—	1	—	2	—	2	—	—	—	1	—	3	1	13	14	—
Bradford	—	2	—	3	1	—	—	3	—	1	—	2	—	—	1	—	—	1	—	1	—	1	—	—	2	15	14	1
Beswick	—	1	1	—	1	1	—	3	—	1	—	—	—	1	—	—	—	3	—	—	—	—	—	—	2	10	17	1
Clayton	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Ardwick	1	2	—	—	1	3	1	—	1	—	—	2	—	1	—	2	—	2	—	2	—	2	—	3	4	23	11	—
Openshaw	—	1	1	—	—	2	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	5	—	—
West Gorton	—	1	—	—	—	1	—	2	—	—	—	1	—	1	—	2	—	1	—	—	—	—	—	1	—	10	7	2
Rusholme	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	3	0	—
Chorlton-upon-Medlock	1	—	1	1	1	3	—	3	—	1	—	3	—	3	—	—	—	3	—	3	—	4	—	—	3	24	6	2
Hulme	—	3	1	—	—	1	—	3	—	5	—	4	—	5	—	4	—	4	—	3	—	4	—	2	1	38	43	4
Moss Side	—	—	—	—	1	—	1	2	—	1	1	—	—	—	—	—	—	—	—	—	—	2	—	2	3	7	5	—
Withington... ..	—	1	—	1	—	1	—	1	—	1	—	—	—	1	—	—	—	1	—	2	—	—	—	—	—	9	2	—
Gorton	—	—	—	—	—	—	—	—	—	1	—	2	—	2	—	—	—	1	—	—	—	—	—	—	—	6	22	—
Levenshulme	—	—	—	1	—	1	—	—	—	—	—	1	—	1	—	—	—	—	—	1	—	—	—	1	—	6	8	1
Total	5	16	8	13	12	21	12	27	7	20	3	30	4	24	2	21	—	27	2	25	1	24	3	15	59	263	282	14
Cases with Corneal Complications ...	1		—		1		4		1		4		1		—		1		1		—		—		14			

282

Tr
Op
Ne

Co

FOOD POISONING.

Outbreak due to Sausages :—

On September 8th, 1922, an outbreak of food poisoning involved 7 households, 24 members of which were attacked. The symptoms were of the usual type associated with the Gaertner group of organisms, but in no case was the illness fatal. Incubation periods varied from 9 to 51 hours, the average being $26\frac{1}{2}$ hours. The causative organism was a strain of *B. Aertrycke*. The food was contaminated at the factory, which was kept in an uncleanly condition. There appeared to be some connection between a crate of bad eggs and the outbreak, but the association was not clearly determined.

Outbreak due to Pork :—

Between August 26th and 29th, 1922, 25 persons belonging to 10 families became ill after eating roast leg of pork. The symptoms were mainly gastrointestinal, and 1 case proved fatal. Incubation periods varied from 8 to 44 hours ; in most it was about 20 hours. The causative organism was a strain of *B. Aertrycke*. The meat was contaminated at the retail shop, which was found in a filthy condition. A bacillus of the food poisoning group was isolated from the spleen of a mouse captured in adjoining premises, but it was not possible to determine what connection, if any, this finding had with the outbreak.

Outbreak due to Mutton :—

Towards the end of May, 1922, Dr. Young investigated an outbreak of food poisoning in which, as far as could be ascertained, 25 individuals were attacked—in 1 case with a fatal result. Six separate households were affected.

An unusual feature of the outbreak lay in the fact that it appeared clearly to have been caused by frozen mutton.

The primary source of infection of the particular carcase which caused the illness was uncertain, although the clinical diagnosis of bacillary food poisoning was rapidly confirmed by the isolation from the tissues of the fatal case of a bacillus of the food poisoning (Gaertner) group, namely, *B. Aertrycke* (type mutton).

The blood of most of the individuals attacked agglutinated in relatively high dilution, both the bacillus isolated from the fatal case and a bacillus of the Gaertner group of known strain (*B. Aertrycke* mutton).

With the exception of 4 persons who ate veal chops, all the individuals attacked had recently eaten mutton purchased from a retail shop. The veal chops were purchased from the same shop about the same time as the mutton which caused the illnesses.

A notable negative instance was provided by the case of a child aged four years (suffering from measles) who alone, among 7 inmates of one household, had no mutton, and did not suffer from symptoms of food poisoning.

Samples of Foodstuffs, etc., submitted for Analysis or Examination.

Nematode worms in fish	...	...	...	...	...	...	2
Liquid egg	...	...	...	...	...	...	3
Acid calcium phosphate...	...	...	...	...	...	...	3
Sponge cakes	...	...	...	...	...	...	6
Aerated waters	...	...	...	...	...	...	24
Town's water	...	...	...	...	...	...	6
Itching powders	...	...	...	...	...	...	2

Infectious Diseases.

Cases of smallpox	...	...	...	...	...	...	4
Persons re-vaccinated	...	...	...	...	...	...	7
Revisits to contacts	...	...	...	...	...	...	44
Cases of scarlatina	...	...	...	...	...	...	19
„ „ enteric fever	...	...	...	...	...	...	10
„ „ herpes zoster	...	...	...	...	...	...	5
„ „ scabies	...	...	...	...	...	...	1
Visits to persons in contact	...	...	...	...	...	...	26
Scarlatina in milk outbreaks—visits	...	...	...	...	...	...	99
Dairies affected	...	...	...	...	...	...	2
Shops „	...	...	...	...	...	...	28
Illnesses at shops	...	...	...	...	...	...	11

Inspections re Fly Nuisances.

Inspection re stables, foundries, tips	...	...	...	...	...	928
„ „ allotments	...	...	...	...	...	8,855
„ „ housing	...	...	...	...	...	254
„ „ nuisances	...	...	...	...	...	186
„ „ miscellaneous matters	...	...	...	...	...	102
„ „ rag and bone shops	...	...	...	...	...	120

Visits re Child Welfare Enquiries	...	...	...	...	...	457
„ „ maternity fees	...	...	...	...	...	123
„ „ Laboratory Museum, Cold Air Stores, Court, etc.	...	...	...	...	...	58
Statistical work—days	...	...	...	...	...	333
Interviews with the Medical Officer of Health	...	...	...	...	...	210

REPORT OF THE SANITARY DEPARTMENT.

By MR. H. DALE, SUPERINTENDENT.

In presenting to the Medical Officer of Health the report of the work transacted in the Sanitary Department for the year ending 31st March, 1922, I beg to state that the City, for inspection and other purposes, is divided into 35 Districts, to each of which one Sanitary Inspector has been assigned.

In addition to these, there is a Superintendent, one Chief Inspector, one Drainage, four Smoke, one Canal Boats, four Lodging-house, three Adulteration of Food, two Milkshops, ten Factory and Workshops Inspectors (including two Female Inspectors), and two Drain Examiners. There is also a Chief Clerk and a staff of 29 Clerks for clerical and other work.

In the Drainage Department there is also a Chief Inspector, three Clerks, and two Clerks of Works for supervising and measuring up work done by the contractors employed by the department in carrying out private drainage work.

The number of complaints of nuisances of various kinds made during the year was 10,654 :—

3,098 through the Medical Officer of Health's Department.

7,536 by the public.

20 through the Police.

HOUSES LET IN LODGINGS.

Under the powers given by Section 90 of the Public Health Act the bye-laws made thereunder have been enforced.

The number of houses on the register is 2,258. To these 20,544 day visits and 214 night visits have been paid. 165 infringements of the regulations have been reported and dealt with.

WORKSHOPS, BAKEHOUSES, SHOPS ACTS, AND ORDERS MADE THEREUNDER.

Workshop Acts

During the year the Factory and Workshop Act of 1901 has received the careful attention of the Male and Female Inspectors specially appointed for the duties, the Female Inspectors devoting a large portion of their time to visiting the 1,503 houses of outworkers in the City.

Means of Escape in case of Fire

Provision for means of escape in case of fire in factories and workshops has also received attention, and all known cases of danger have been dealt with.

Bakehouses

The number of bakehouses in the City is 597 ; of these, 47 are situate in basement premises, and special attention has been given to them.

Shops Acts

The Shop Acts have received attention, registers of all shops having been prepared. Orders of Exemption from compulsory closing have been made in 33 trades. In 6 trades Orders have been made fixing the day for the weekly half-holiday, and in 3 trades Orders have been made fixing the closing hour for the several days of the week.

Outworkers

Many visits have been paid to houses in various parts of the City in which outwork is carried on, as will be seen on reference to the following tabulated statement, but constant visitation is necessary to maintain the standard of cleanliness which is to be desired, especially in houses in which shirt-making, handkerchief-hemming, brace-making, and umbrella-covering, etc., is done.

The people, as a rule, appear willing to carry out any suggestion made by the Inspectors to keep their houses clean ; but at the same time it is almost impossible for small houses, sometimes containing large families, to be kept in such a satisfactory condition as workshops.

SHOWING THE WORK DONE BY THE INSPECTORS UNDER THE FACTORY AND WORKSHOP AND SHOPS ACTS.

The work done under the above Acts is shown in the following tables:—

Number of District	INSPECTOR	SHOPS			WORKSHOPS					BAKEHOUSES					OUT- WORKERS		Total Number of Inspections
		Number visited	Number of cases in which Magisterial proceedings have been taken	Number cautioned by Committee	Number visited	Number of premises in which Sanitary defects were found	Number of cases reported to the Factory Inspector	Number of Infringements reported to the Committee	Number of cases in which Magisterial proceedings have been taken	Number visited	Number of premises in which Sanitary defects were found	Number of reports referred to Factory Inspector	Number of Infringements reported to the Committee	Number of cases in which Magisterial proceedings have been taken	Number of visits to houses where outworkers are employed	Number of houses found dirty	
1	William Moss	1953	8	10	2423	210	160	..	1	3	11	256	35	1	..	..	4632
2	Richard Tolson	1568	13	9	3041	188	48	1	..	1	37	236	15	..	77	..	4922
3	Alfred Campbell	2120	4	1	1695	81	49	1	1	1	23	360	47	9	..	..	4175
4	Thomas Nicholson	2343	7	6	2462	132	65	..	1	2	30	430	44	1	18	..	5253
5	Thomas A. Linfoot	2594	13	15	2013	48	63	..	..	3	3	844	26	8	..	..	5451
6	(b) George Vernon and H. Pollitt	1806	9	11	2460	119	122	1	..	6	28	564	76	7	..	..	4830
7	Ernest Dooley	1688	20	25	2808	191	77	..	..	2	6	700	86	..	..	..	5196
8	(a) George Vernon	405	5	3	812	70	37	..	..	5	21	88	7	..	..	..	1305
..	Mrs. R. G. Clift	715	..	..	916	11	..	2	..	..	..	..	..	..	4900	3	6531
..	(c) Mrs. E. Darbyshire	286	..	..	1169	24	3	..	..	..	..	..	..	..	2537	5	3992
	TOTALS	15478	79	80	19799	1074	624	4	5	23	159	3478	336	26	7532	8	46287

Totals on Registers—Shops, 24,060; Workshops, 3,561; Bakehouses, 597.

(a) F. J. Rowe, the Inspector for this District from April to December, 1921, was absent sick during the whole of this period. George Vernon was transferred from No. 6 to No. 8 District, January 2nd, 1922.

(b) Inspector Pollitt commenced January 30th, 1922.

(c) Mrs. Darbyshire resigned October 29th, 1921.

SHOWING THE NUMBER AND CLASSIFICATION OF PERSONS EMPLOYED AS
OUTWORKERS BY FIRMS WITHIN THE CITY, AND THE NUMBER OF
SUCH FIRMS.

TRADES	No. of Employers	No of Outworkers or Contractors employed
Makers of Wearing Apparel	357	1496
Button Carding	1	4
Cabinet Makers and Upholsterers	3	7
Artificial Flower Makers	1	2
Fent Sorters	2	1
Handkerchief Hemmers	13	18
Lace, Lace Curtains, and Nets	1	7
Opticians	1	1
Paper Bags and Box Makers	2	1
Quilt, Cushions, etc., Makers	5	47
Umbrella Trimmers	16	71
Window Blinds	2	17
Football Makers	1	3
Watch and Clock Repairers	1	3
Shopping Bag Makers	3	61
Totals	409	1739*

* 1,503 of these are in the City, the remainder are in the districts of other Local Authorities,
to whom lists showing the names and addresses have been sent

SHOWING THE PROCEEDINGS TAKEN UNDER THE PROVISIONS OF THE ADULTERATION
OF FOOD AND DRUGS AND THE MARGARINE ACTS.

ARTICLE	Number of Samples Obtained	Number Adulterated	Number not Adulterated	Number Sum- moned before Magistrates	Number Fined	Number Ordered to Pay Costs only	Number Dismissed or Withdrawn	Number Cautioned by Committee	Amount of Fines Imposed			Amount of Costs Ordered to be Paid		
									£	s.	d.	£	s.	d.
Wheat and Corn Flour .	25	...	25	...	...	...	...	...	...	...	...	...	...	...
Onion Powder .	24	...	24	...	...	...	...	...	...	...	...	...	...	...
Vegetable Dripping .	25	...	25	...	...	...	...	...	...	...	...	...	...	...
Butter .	28	...	28	...	...	...	...	...	...	...	...	...	...	...
" .	13	...	13	...	...	...	...	...	...	...	...	...	...	...
" .	14	...	14	...	...	...	...	...	...	...	...	...	...	...
" .	47	...	47	...	...	...	...	...	...	...	...	...	...	...
Phosphated Oil .	21	...	21	...	...	...	...	...	...	...	...	...	...	...
" .	16	...	16	...	...	...	...	...	...	...	...	...	...	...
" .	26	...	26	...	...	...	...	...	...	...	...	...	...	...
" .	8	...	8	...	...	...	...	...	...	...	...	...	...	...
" .	26	...	26	...	...	...	...	...	...	...	...	...	...	...
Liver Oil .	12	...	12	...	...	...	...	...	...	...	...	...	...	...
" .	29	...	29	...	...	...	...	...	...	...	...	...	...	...
" .	132	...	132	...	...	...	...	...	...	...	...	...	...	...
" .	40	1	39	...	...	...	...	1	...	...	...	...	...	...
" .	416	*6	410	2	...	2	...	1	...	...	...	2	1	6
" (tinned and potted) .	22	...	22	...	...	...	...	...	...	...	...	...	...	...
" (tinned) .	17	...	17	...	...	...	...	...	...	...	...	...	...	...
" .	63	...	63	...	...	...	...	...	...	...	...	...	...	...
" .	16	...	16	...	...	...	...	...	...	...	...	...	...	...
" .	13	...	13	...	...	...	...	...	...	...	...	...	...	...
" .	51	...	51	...	...	...	...	...	...	...	...	...	...	...
" .	19	...	19	...	...	...	...	...	...	...	...	...	...	...
" .	13	...	13	...	...	...	...	...	...	...	...	...	...	...
" .	40	...	40	...	...	...	...	...	...	...	...	...	...	...
" .	23	...	23	...	...	...	...	...	...	...	...	...	...	...
" (tinned and prepared)	60	...	60	...	...	...	...	...	...	...	...	...	...	...
" Extract .	16	...	16	...	...	...	...	...	...	...	...	...	...	...
" .	1022	*72	950	63	34	24	5	6	176	0	0	79	8	6
" (condensed and evapo- " (skimmed) .	41	...	41	...	...	...	...	...	...	...	...	...	...	...
" .	10	...	10	...	...	...	...	...	...	...	...	...	...	...
" .	38	...	38	...	...	...	...	...	...	...	...	...	...	...
" .	7	...	7	...	...	...	...	...	...	...	...	...	...	...
" .	22	...	22	...	...	...	...	...	...	...	...	...	...	...
" .	15	...	15	...	...	...	...	...	...	...	...	...	...	...
" .	5	...	5	...	...	...	...	...	...	...	...	...	...	...
" .	10	...	10	...	...	...	...	...	...	...	...	...	...	...
" .	10	...	10	...	...	...	...	...	...	...	...	...	...	...
" .	31	...	31	...	...	...	...	...	...	...	...	...	...	...
" .	11	...	11	...	...	...	...	...	...	...	...	...	...	...
" .	1	...	1	...	...	...	...	...	...	...	...	...	...	...
" .	110	...	110	...	...	...	...	...	...	...	...	...	...	...
" .	10	...	10	...	...	...	...	...	...	...	...	...	...	...
" .	18	...	18	...	...	...	...	...	...	...	...	...	...	...
" .	25	...	25	...	...	...	...	...	...	...	...	...	...	...
" .	7	...	7	...	...	...	...	...	...	...	...	...	...	...
" .	11	...	11	...	...	...	...	...	...	...	...	...	...	...
" .	2	...	2	...	...	...	...	...	...	...	...	...	...	...
" .	14	...	14	...	...	...	...	...	...	...	...	...	...	...
Totals .	2675	79	2596	65	34	26	5	8	176	0	0	81	10	0

* In six of these cases no Magisterial proceedings were taken, three samples of Drugs and three of Milk having been taken informally.

In addition to the above, 261 samples of Milk have been procured from Farmers' cans by the Sampling Officers for bacteriological examination under the Milk Clauses of the Manchester General Powers Acts.

Fertilizers and Feeding Stuffs Act, 1906.

Ten samples were procured under this Act, which were submitted to Mr. H. Heap for analysis. 3 were reported on as satisfactory and 7 were reported as not complying with the Act and referred to the Board of Agriculture to be dealt with.

SMOKE NUISANCES.

For the abatement of smoke nuisances the four Inspectors appointed specially for this work have taken 286 timed observations of half-an-hour each, with the result that 56 notices for the abatement of nuisances have been served. Proceedings before the Magistrates were ordered in 37 cases out of 113 offences reported. The number of offenders cautioned or excused was 76.

The 37 were summoned before the Justices, and in 30 instances fines were imposed amounting to £63 5s. od., while 1 was ordered to pay costs only (5/-).

Four orders of abatement were granted and served, and the costs paid in connection therewith amounted to £1 12s. od., and 2 cases were dismissed or withdrawn.

Much attention during the past year has been given to the nuisance caused by the emission of black smoke, not only from the furnaces connected with boilers in mills, warehouses, and other works, but also from chemical and other industries, and the efforts made have already resulted in a considerable reduction of the nuisance.

Chimneys of firms in adjoining districts have also been observed in regard to smoke nuisances, and communications sent to the Authorities concerned.

CANAL BOATS ACTS.

The number of canal boats on the register is 458.

The number of inspections made was 1,491.

Caution notices were sent to the owners or masters of 35 boats, and 26 owners or masters were verbally cautioned by the Inspector.

OFFENSIVE TRADES.

The number of offensive trades on the register is 867. These have been kept under close supervision, and periodical visits paid.

UNHEALTHY DWELLINGS.

During the year 20 houses were certified as unfit for human habitation, and ordered to be closed by the Public Health Committee.

MILK AND CREAM REGULATIONS, 1912 AND 1917.

The following is a summary of the action taken under these regulations in 1922 :—

1. *Milk and Cream not sold as Preserved Cream.*

	(a) Number of samples examined for the presence of a preservative	(b) Number in which a preservative was reported to be present
Milk	1,073	2
Cream	5	1

Nature of preservative in each case in column (b) and action taken under the Regulations in regard to it. (See table below.)

Article	No. of Sample	Formal or Informal	Result of Analysis	Action taken
... ..	645	Formal	Contained one part of Formic Aldehyde in 250,000 parts of milk	Cautioned by Committee on payment of costs
... ..	1845C	Informal	Contained added Sodium Carbonate	Formal sample taken which upon analysis was found to be genuine
... ..	1791C	Formal	Contained 0.29 per cent. of Boric Acid and 46.90 per cent. of fat	Cautioned by Committee on payment of costs

2. *Cream sold as Preserved Cream.*

(A) Instances in which samples have been submitted for analysis to ascertain if the statements on the labels as to preservatives were correct :—

(1) Correct statements made 29

(2) Statements incorrect 2

Total 31

(B) Determination made of milk fat in cream sold as preserved cream :—

(1) Above 35 per cent. 31

(2) Below 35 per cent.

Total 31

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed. (See Section 4.)

(d) Particulars of each case in which the Regulations have not been complied with and action taken. (See Section 4.)

3. *Thickening Substances*.—Any evidence of their addition to cream or to preserved cream—None. Action taken where found—None.

4. *Other Observations*, if any.

Answers to Question 2 (c and d) (see reply below*)

„ Questions 3 and 4 None

* Two samples of preserved cream, Nos. 211 and 1274c, were found, upon analysis, to contain 0.46 per cent. and 0.49 per cent. of boric acid respectively, but no action was taken, as the limit was so slightly exceeded.

NUMBER OF NOTICES ISSUED FOR ABATEMENT OF NUISANCES UNDER THE VARIOUS LOCAL ACTS AND BYE-LAWS DURING 1922.

Act of Parliament	Work required to be done	No. of Notices Issued
Manchester Police Act, 1844 (Section 86)	Cleanse and limewash houses	165
„ „ „	„ „ (privies)	45
Manchester Corporation Waterworks and Improvement Act, 1867 (Section 42) and 1869 (Section 34)	Repairs to privies, etc. ...	492
Manchester Corporation Waterworks and Improvement Act, 1869 (Section 29)	Renew defective downspouts and gutters	1,362
Manchester Corporation Waterworks and Improvement Act, 1869 (Section 31)	Discontinue keeping swine .	4
Manchester New Streets Act, 1853 (Section 41)	Repair or flag surfaces of yards and passages	1,490
Manchester Corporation Act, 1891 (Section 38)		
Manchester New Streets Act, 1853 (Section 45)	Discontinue occupying cellars as dwelling-rooms	—
Manchester Improvement Act, 1845 (Section 46)	Open, cleanse, and repair drains	1,612
Manchester Bye-laws relating to houses let in lodgings	Alterations and general repairs	67
Not issued under any Act of Parliament...	Preliminary notice for general repairs	*4,340

NOTE.—The majority of the notices issued have been complied with, including the preliminary notices marked with an asterisk, and of the remaining number the worst cases have been referred to the Housing Committee to be dealt with under the Housing and Town Planning Act, 1919.

Number of Lodging-Houses on the Register	Number of Visits		Total Number of Visits	Number of Offences Reported to Committee	Number ordered to be Summoned	Number Cautioned, Excused, or Reported to other Committees	Minor Offences Cautioned by Deputy- Superintendent
	Day	Night					
2,310	22,075	223	22,298	162	147	15	63

TABLE SHOWING THE NUMBER OF CASES IN WHICH MAGISTERIAL PROCEEDINGS WERE TAKEN AND THE RESULT OF SAME.

Description of Offence	Number of Summonses taken Out	Number of Persons Fined with Costs	Number of Persons Ordered to Pay Costs only	Number Adjudged	Number Excused, Dismissed, or Withdrawn	Amount of Fines Imposed	Amount of Costs Ordered to be Paid
Lodging-houses in a dirty state	85	26	14	19	26	£ 8 s. 17 d. 6	£ 3 s. 10 d. 0
Lodging-houses overcrowded	24	9	4	2	9	4 0 0	1 0 0
Mixing of sexes	8	5	...	...	3	1 17 6	...
Using kitchen and unregistered room as sleeping rooms	8	3	2	...	3	0 15 0	0 10 0
Keeping animals so as to render premises unwholesome	2	1	...	...	1	0 10 0	...
Neglecting to furnish particulars of lodging- houses	7	6	1	...	...	7 0 0	0 5 0
Refusing admission to Inspector	4	3	1	...	...	1 0 0	0 5 0
Neglecting to provide water supply, sink, ventilation, &c.	5	...	1	1	3	...	0 5 0
Sleeping room not effectually screened	4	2	...	1	1	0 15 0	...
Totals	147	55	23	23	46	24 15 0	5 15 0

BAKEHOUSES AND OTHER PREMISES IN WHICH FOOD IS PREPARED.

The total number of visits made by Inspectors to bakehouses during the year was 3,865, and their routine work is referred to on page 169.

Visits were made in connection with 61 applications for the use of premises as bakehouses, with the result that 29 were considered unsuitable and 31 were approved on certain conditions being fulfilled, and 1 case is still under consideration.

The following table relates to bakehouses, restaurant kitchens, and foodshops in which Mr. Irvine was requested by the Medical Officer of Health to prepare specifications of the work required in order to make the premises fit for the purpose.

Specifications for bakehouses prepared prior to 1922 in which work was completed during 1922 or still in progress on December 31st, 1922 :—

Number of specifications prepared	6
„ in progress	1
„ discontinued as a bakehouse	1
„ completed	4

Specifications for bakehouse prepared in 1922 :—

Number of specifications prepared	3
„ completed	—
„ discontinued as a bakehouse	—
„ in progress	2
„ nothing done	1

Specifications for restaurants prepared prior to 1922 in which work was completed during 1922 or was still in progress on December 31st, 1922 :—

Number of specifications prepared	1
„ in progress	—
„ discontinued	—
„ completed	1

Specifications for restaurants prepared in 1922 :—

Number of specifications prepared	7
„ completed	—
„ in progress	1
„ nothing done	6

Specifications for other food-preparing premises prepared prior to 1922 in which work was completed during 1922 or was still in progress on December 31st, 1922 :—

Number of specifications prepared	29
„ in progress	7
„ complete	14
„ discontinued	3
„ nothing done	5

Specifications for other food-preparing premises prepared in 1922 :—

Number of specifications prepared	19
„ in progress	5
„ nothing done	6
„ discontinued	1
„ complete	7

	Ancoats	Central	St. George's	Cheetham	Crumphall	Blackley	Harpurhey	Moston	Newton	Bradford	Bewick	Clayton	Ardwick	Openshaw	Gorton (West)	Rusholme and Kirkmanshulph	Chorlton-upon- Medlock	Hulme	Moss Side	Withington	Levenshulme	Gorton	TOTALS
Complaints to Sanitary Superintendent ..	1115	828	1400	664	107	142	311	162	499	688	81	297	842	575	309	652	682	1737	487	157	163	502	12,555
Dwelling-houses	5204	2517	5158	1902	1087	659	1517	1632	4353	744	341	2035	3492	1612	1913	4009	5176	9915	3123	987	1625	3928	62,969
Newly-infected Dwelling-houses	267	154	407	517	84	94	119	198	503	287	114	127	314	380	246	380	361	768	290	369	190	726	6,895
Cellars	4	35	197	...	...	...	...	...	3	...	...	4	...	1	...	5	...	303	...	...	...	1	553
Schools	28	26	18	16	10	7	3	5	41	18	10	20	33	18	13	38	70	74	6	25	18	14	511
Factories and Workshops	16	203	45	5	...	4	3	33	96	3	...	2	15	60	...	2	...	195	6	9	...	...	697
Lodging-houses	2632	4786	5146	1515	37	54	66	15	15	180	204	18	595	3	40	168	3605	2803	239	...	87	10	22,208
Offensive Trades	21	28	158	26	1	...	1	1	33	2	4	115	19	8	2	4	12	51	...	1	2	9	498
Dairies and Milkshops	986	1021	1425	823	134	226	349	461	917	595	247	351	1016	551	417	755	1543	1275	842	691	304	815	15,744
Ice Cream Manufactories	455	6	61	5	3	3	4	1	5	15	5	1	25	23	21	2	6	16	6	1	4	1	667
Bakehouses	158	161	98	344	25	82	109	94	178	93	74	73	195	243	123	239	334	282	201	319	166	278	3,869
Canal Boats	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,805
Slaughter-houses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
Tips for Refuse	...	...	1	15	35	31	4	10	76	...	...	4	78	25	...	5	15	...	...	7	2	3	314
Miscellaneous Inspections	1887	1833	2155	245	188	75	132	644	298	24	1448	79	3032	189	81	200	1069	635	277	2476	142	1319	18,428
Stables, &c.	299	490	205	343	2	5	2	73	296	1	68	255	386	31	26	44	295	81	94	14	72	167	3,231
Factories and Workshops by Shop Hours, &c., Inspectors	1192	5187	1219	3033	135	113	136	130	298	248	165	154	854	394	552	748	2122	999	601	645	233	366	19,324
Shops by Shop Hours, &c., Inspectors	887	2059	911	1572	109	212	437	219	667	360	365	196	848	804	571	801	1216	1125	545	640	362	876	15,842
Infected Rooms Disinfected	2849	718	1599	667	352	246	314	762	1030	656	977	424	1000	1052	645	1236	1084	2385	905	1230	450	1466	22,077
Infected Dwellings Re-inspected	1387	1024	2661	1264	462	470	657	1401	1565	788	339	167	1212	1614	849	1444	1581	2594	1225	1669	625	1959	26,957
Drains Tested by Water	98	104	25	119	45	26	3	30	27	29	7	12	40	14	34	229	148	68	39	341	62	110	1610
Smoke { Observations made	43	47	1	13	9	15	3	2	10	11	2	45	19	10	7	7	7	25	4	7	...	...	290
Abatement { Proceedings before Magistrates	9	9	...	1	...	4	3	1	3	1	3	14	3	1	3	...	...	6	1	1	...	...	64
Food and { Samples Collected for Analysis	108	600	87	154	34	22	31	21	67	14	12	12	67	111	101	162	392	265	201	202	101	75	*2,840
teration { Proceedings before Magistrates	2	26	...	20	5	5	...	1	1	1	...	...	...	...	3	3	6	6	1	...	4	7	91
Ashts reported to Cleansing Department for emptying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Receptacles reported to Cleansing Department for emptying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
Notices issued for Abatement of Nuisances	1459	745	1289	1218	126	191	278	453	586	577	320	269	1150	369	446	687	1235	2174	377	575	353	914	\$15,831
Letters written for Abatement of Nuisances	44	66	54	61	3	2	3	3	6	2	7	8	30	4	4	14	24	38	4	5	3	12	+ 397
Reports made to Medical Officer of Health	15	27	21	9	67	...	...	...	41	...	...	...	46	3	...	41	44	30	2	88	49	65	555
Legal proceedings taken	15	36	15	38	...	...	...	...	4	6	4	17	25	7	5	8	52	32	6	3	2	6	293
Total Nuisances abated	1506	720	1429	1278	84	166	285	496	1113	565	361	230	1116	471	333	672	1151	2121	453	639	313	936	17,447

* 1 Sample procured outside the City.

† In addition to these there were 2,198 circular letters sent to owners of defective water-closets and ashbins, and 4,224 orders on the Cleansing Department for new ashbins were sent to owners or contractors. § Includes 40 notices issued for repairs to Canal Boats. It will be noted that the number of nuisances abated exceeds the number of notices issued during the year; this is owing to a considerable number of outstanding notices having been complied with in this period.

TABLE B.

Annual Report of the Medical Officer of Health for the year 1922, for the County Borough of Manchester, on the administration of the Factory and Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

I.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.
Including Inspections made by Sanitary Inspectors or Inspectors of Nuisance

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)... ..			
Workshops (including Workshop Laundries)... ..	23397	212	6
Workplaces (other than Outworkers' premises included in Part 3 of this Report)			
Total	23397	212	6

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.

Particulars	Number of Defects			No. of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	623	619	...	...
Want of ventilation	26	26	...	...
Overcrowding	9	9	...	...
Want of drainage of floors	2	2	...	...
Other nuisances	108	101	...	...
Sanitary accommodation—				
Insufficient	35	10	...	1
Unsuitable or defective... ..	173	153	...	...
Not separate for sexes	3	1	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	358	355	...	1
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	2	2	4	...
Means of escape in case of fire (insufficient)	31	14	...	4
Means of escape in case of fire (defective)	164	158	...	...
Total	1534	1450	4	6

* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remedial under the Public Health Acts.

NATURE OF WORK	Lists received from Employers						SECTION 108			SECTIONS 109, 110			
	Sending twice in the year			Sending once in the year			Prosecutions	Instances	Notices served	Prosecutions	Instances	Order made (S. 110)	Prosecutions (Sections 109, 110)
	Lists	Outworkers Con-tractors	Work-men	Lists	Con-tractors	Work-men							
Wearing apparel— (1) Making, etc.	692	559	2377	26	7	63							
(2) Cleaning and washing													
Household linen													
Lace, lace curtains, and nets	2		14										
Curtains and furniture hangings													
Furniture and upholstery	6	5	8										
Electro-plate													
File making													
Brass and brass articles . . .													
Furriers													
Watch and clock repairers	2		6										
Anchor and grapnels													
Shopping bag makers	4		93	2		8							
Cotton bags													
Umbrellas, etc.	32		165										
Artificial flowers	2		4										
Nets, other than wire nets . .													
Fents	2		2										
Quilts	10		94										
Gold beaters													
Paper, etc., boxes, paper bags	2		2										
Window blinds	4		31										
Sponges													
Hair pads													
Carding, etc., of buttons, etc.	2		7										
Opticians	2	2											
Handkerchief hemmers	22	3	42	1									
Washleathers													
Stuffed toys													
Football makers	2		5										
Total	786	569	2850	29	7	71	A notification sent with a blank list to each employer twice a year						

A notification sent with a blank list to each employer twice a year

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year		Number
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops	3461
	Bakehouses	641
	Total number of Workshops on Register ...	4102

5.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	176
Action taken under Sec. 5 of the Factory and Workshop Act in matters referred by H. M. Inspector as remediable under the Public Health Acts :—	
Notified by H.M. Inspector	127
Reports (of action taken) sent to H.M. Inspector	127
Other	514
Underground Bakehouses (S. 101) :—	
In use at the end of the year	25
Not in use at the end of the year	22
Demolished	...

NOTE.—The Factory and Workshop Act, 1901 (S. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces, or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906.

I append a brief Statement on the Memorandum of the Home Office upon the Structural requirements of the Factory and Workshop Acts, as to

1. Means of escape from fire :

Bye-laws have been in operation since 1908. These have been amended and in their amended form were approved by the Local Government Board in 1913.

A large amount of work has been done under these bye-laws, and practically the whole of the factories and workshops have been dealt with.

2. Sanitary accommodation :

Although the work has not been carried out under the Sanitary Accommodation Order, 1903, the conditions stated in the Memorandum have been enforced and all the factories and workshops have been dealt with, although changes are constantly occurring.

CLOSET ACCOMMODATION.

The following table shows the manner in which the conversion was effected from pails and middens in the City to water-closets. This conversion was accompanied by the necessary alterations in house drains, passage drains, paving of passages, and in the houses themselves. These alterations cannot be exhibited in tabular form, at all events so far as drainage and paving is concerned.

RETURN OF PAIL-CLOSETS AND MIDDEN-PRIVIES ALTERED TO WATER-CLOSETS.

	Number of Pail-Closets altered to Water-Closets	Number of Midden-Privies altered to Water-Closets	Number of Slop Water-Closets altered to Water-Closets
From April 1st, 1891, to March 31st, 1892	16	39	—
" " 1892, " 1893	98	100	—
" " 1893, " 1894	138	141	—
" " 1894, " 1895	179	89	—
" " 1895, " 1896	185	119	—
" " 1896, " 1897	197	284	—
" " 1897, " 1898	179	405	—
" " 1898, " 1899	136	960	—
" " 1899, " 1900	249	897	—
" " 1900, " 1901	180	1,327	—
" " 1901, " 1902	385	999	—
" " 1902, " 1903	976	1,282	—
" " 1903, " 1904	1,899	1,379	—
" " 1904, " 1905	2,222	1,691	—
" " 1905, " 1906	3,297	*2,600	—
" " 1906, " 1907	3,746	3,662	—
" " 1907, " 1908	1,296	918	—
" " 1908, " 1909	10,081	2,844	—
" " 1909, " 1910	11,296	1,378	45
" " 1910, " 1911	8,552	1,204	217
" " 1911, " 1912	6,970	*3,180	121
" " 1912, " 1913	4,214	533	153
" " 1913, " 1914	1,420	78	14
" " 1914, " 1915	428	61	3
" " 1915, " 1916	155	14	—
" " 1916, " 1917	29	6	—
" " 1917, " 1918	3	—	—
" " 1918, " 1919	76	13	—
" " 1919, " 1920	1	—	—
" " 1920, " 1921	2	—	—
" " 1921, " 1922	14	—	—
" " 1922, " 1923	10	—	—
Total (85,375)....	58,629	26,203	553

* Extension of City Boundaries.

HOUSING PARTICULARS FOR THE CITY OF MANCHESTER.

The figures are summarised below.

The number of houses certified to, and dealt with by, the Housing Sub Committee from February, 1885, to December 31st, 1922 :—

	Number Certified and ordered to be Closed	Number of Houses added together or to other Houses	Number Demolished	Number Repaired and Reopened	Number Closed	Number not Closed	Number which stand Adjourned
Totals.. ..	27394	3375	6840	13451	1330	2309	89

The extent to which these operations have been reduced is seen from the corresponding figures relating to 1922 :—

Totals.. ..	39	..	1	2	1	31	4
-------------	----	----	---	---	---	----	---

The number of conversions from pail-closets and midden privies to water closets is given herewith :—

From April 1st, 1903, to March 31st, 1922 75,262

From April 1st, 1921, to March 31st, 1922 14

The numbers still requiring to be replaced are—middens, 35 ; pail-closets 1,310. The number of water-closets in Manchester is estimated (at December 31st, 1922) to be 225,341, of which 177,197 are in houses and 48,144 are in warehouses, workshops, etc.

HOUSING ASSISTED SCHEMES.

182A

The Housing Manager submits herewith Statement showing the number of houses completed and occupied during the year 1922 under the above schemes.

Estate	Date when list of applicants was opened	Number of Houses completed and occupied during the month ending												Total number of houses completed and occupied on each Estate during the year 1922	Remarks
		Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
Heaton Park (Converted huts) ...	1st Nov., 1919	—	—	—	—	—	—	—	—	—	—	—	—	—	All completed and occupied (99)
Blackley	8th Sept., 1919	8	18	8	10	28	12	26	25	13	16	3	—	167	
Temple	2nd July, 1919	—	—	—	—	—	—	—	—	—	—	—	—	—	All completed and occupied (78)
Wilbraham Road, Fallowfield ...	8th April, 1920	37	19	34	29	55	19	57	49	92	98	67	45	601	
Gorton	8th April, 1920	27	20	29	20	25	20	18	30	8	16	7	9	229	
Anson	26th Aug., 1920	35	26	32	30	77	48	79	36	45	27	22	40	497	
Newton Heath	2nd Oct., 1920	—	—	—	—	—	—	—	31	43	33	4	4	115	
Highfield, Levenshulme	Smallholdings	—	—	—	—	—	—	—	—	—	—	—	5	5	
Catterick Hall, Didsbury	21st Nov., 1920	8	6	7	6	9	4	35	23	8	16	9	26	157	
North Road, Clayton	25th Nov., 1920	6	7	10	9	12	7	9	6	11	15	11	—	103	
Total ... ..	... ..	121	96	120	104	206	110	224	200	220	221	123	129	1874	



TABLE II.

HOUSING AND TOWN PLANNING ACTS.

GENERAL CHARACTER OF THE HOUSES INSPECTED IN EACH DISTRICT DURING THE PERIOD FROM JANUARY 1ST, 1922, TO DECEMBER 31ST, 1922.

DISTRICT	Lack of Free Ventilation	Deficiency of Light	Drainage	Paving	Want of Cleanliness	Dampness		Closets			Ashplaces		Defects		Overcrowding		General Summary of District
						From Ground	From Roof	W.C.'s	Pails	Privies	Bins	Boxes	Remediable	Irremediable	Over 2 persons per Room	Over 2½ persons per Bedroom	
Central	27	25	10	1	5	15	6	160	—	—	159	—	69	80	5	33	—
Hightown	—	5	20	102	14	320	400	722	—	—	700	19	664	46	—	18	—
Ancoats	495	208	8	131	162	167	223	1,974	12	—	1,961	16	695	1,025	76	433	—
Chorlton-on-Medlock	69	74	59	85	19	104	78	501	—	—	491	8	395	103	8	91	—
Hulme	430	216	51	1,139	145	647	558	2,288	8	6	2,254	33	1,677	625	2	141	—
Longsight	—	—	1	3	1	1	1	203	—	—	194	8	20	—	—	3	—
Crumpsall	—	—	3	29	2	15	16	97	1	3	96	1	76	25	1	9	—
Blackley	7	3	5	240	13	101	59	606	1	—	575	28	515	65	5	20	—
Harpurhey	10	15	2	460	38	28	29	1,701	—	—	1,566	96	1,673	20	11	148	—
Moston	6	24	12	450	25	60	38	1,424	—	3	1,412	11	1,349	16	10	144	—
Newton Heath ...	—	3	—	11	4	10	10	265	—	—	258	7	224	3	—	23	—
Clayton	—	—	—	4	—	9	2	285	—	—	282	2	113	—	3	40	—
Openshaw	—	—	—	46	—	—	1	163	—	—	151	6	163	—	9	25	—
West Gorton	—	—	5	54	—	5	—	147	—	—	142	5	63	—	—	8	—
Rusholme and Fallowfield ...	—	—	1	121	1	13	3	300	—	—	297	3	223	—	—	—	—
Moss Side	20	21	—	158	13	74	79	287	—	—	283	—	226	61	1	9	—
Levenshulme	6	3	1	36	3	11	20	252	—	—	250	1	116	12	2	12	—
Gorton	—	—	—	13	—	—	—	119	—	—	119	—	15	—	—	14	—
Chorlton-cum-Hardy	—	—	—	6	—	—	—	111	—	—	111	—	22	3	1	6	—
Didsbury	—	—	—	13	—	16	—	184	—	—	180	4	42	42	3	6	—
TOTALS	1,070	597	178	3,102	445	1,596	1,523	11,789	22	12	11,481	248	8,370	2,126	137	1,192	—



CITY OF MANCHESTER.

TABLE 3—HOUSE TO HOUSE INSPECTIONS, 1922.

This Table is comparable with figures given in the Census Report, 1911.

No. of Rooms per Tenement	No. of Individuals in Private Families or Tenements			No. of Individuals per Room.			No. of Children under 10 years per Family or Tenement			Over 2 Individuals per Room		
	Families or Tenements	Population	Individuals per family or Tenement	Rooms	Population	Individuals per Room	Families or Tenements	Children under 10	Children per Family or Tenement	Families	Population	Individuals per Room
One	19	21	1.10	19	21	1.10	19	0	—	—	—	—
Two	242	782	3.23	484	782	1.60	242	227	0.94	33	202	3.06
Three	1,065	4,637	4.35	3,195	4,637	1.45	1,065	1,024	0.96	106	835	2.62
Four	4,286	18,711	4.37	17,144	18,711	1.09	4,286	4,291	1.00	146	1,408	2.41
Five	3,319	15,305	4.61	16,595	15,305	0.92	3,319	2,464	0.74	23	278	2.41
Six	1,715	8,031	4.68	10,290	8,031	0.78	1,715	1,124	0.66	6	92	2.55
Seven	725	3,942	5.44	5,075	3,942	0.78	725	501	0.69	—	—	—
Over Seven ...	452	2,701	5.98	—	—	—	452	303	0.67	—	—	—
Totals ...	11,823	54,130	4.57	—	—	—	11,823	9,934	0.84	—	—	—



THE FOLLOWING TABLE SHOWS THE RESULTS OF INSPECTION OF HOUSES REPORTED TO THE HOUSING SUB-COMMITTEE AS UNFIT FOR HUMAN HABITATION DURING THE YEAR 1922.

Number of Dwelling-houses inspected for all purposes	69,864
„ considered by the District Inspector of Nuisances unfit for human habitation (houses certified)	39
„ of representations made by the Sanitary Superintendent under a Local Act	39
„ of Closing Orders made	35
„ of Dwelling-houses the consideration of which stand adjourned	4
„ put in a fit state for human habitation after Closing Order had been made	2

General character of defects stated to exist :—

Ventilation defective	21
Light defective	11
Closet accommodation defective	10
External disrepair	34
Internal disrepair	30
Drainage defective	9
Dampness	11
Water supply defective	—
Dirty—always immediately cleansed	6
Arrangement for deposit of refuse defective	9
Yards require paving	17

The number of new houses certified between November 1st, 1921, and October 31st, 1922, was 139* ; during the years 1920–1921 it was 165, as compared with 79 in 1919–1920, 8 in 1918–1919, 11 in 1917–1918, 19 in 1916–1917, 119 in 1915–1916, 410 in 1914–1915, 748 in 1914, 997 in 1913, and 1,072 in 1912.

In neighbouring areas 592 new houses were certified during 1921, against 214 in 1920, 29 in 1919, 0 in 1918, 8 in 1917, 52 in 1916, whilst in 1915 the number was 238.

The figures for 1922 were—Salford 493, Stretford 146, Eccles 265, and Droylsden 35.

* This does not include new houses under the Municipal Housing Schemes. Including these, the total number erected during 1922 was 2,013.

TABLE I.
HOUSING AND TOWN PLANNING ACTS.

TABLE SHOWING THE CLASSIFICATION OF HOUSES INSPECTED IN EACH DISTRICT DURING THE PERIOD FROM JANUARY 1ST, 1922, TO DECEMBER 31ST, 1922.

DISTRICT	Number of Houses Inspected	Number of Rooms							Good	Minor Defects	Serious Defects		Unfit; cannot be remedied	Business Premises	
		1	2	3	4	5	6	over 6			Remediable without reconstruction	Irremediable without reconstruction		Total	Part
Central	160	—	8	27	65	24	14	22	11	25	44	33	47	780	73
Hightown... ..	722	—	—	—	65	262	146	249	12	282	382	46	—	17	23
Ancoats	1,986	18	189	535	851	278	76	39	266	261	434	371	654	454	342
Chorlton-on-Medlock	501	—	18	60	198	133	47	45	3	305	90	42	61	48	84
Hulme	2,302	—	18	78	544	844	441	377	—	892	785	347	278	172	350
Longsight... ..	203	—	—	—	102	63	26	12	183	13	7	—	—	2	21
Crumpsall... ..	101	—	—	14	38	39	3	7	—	28	48	23	2	9	6
Blackley	607	—	1	76	233	136	78	83	27	283	232	58	7	26	38
Harpurhey	1,701	—	1	53	751	504	200	132	8	667	1,006	15	5	55	73
Moston	1,427	—	1	46	781	508	84	7	62	1,215	134	12	4	22	80
Newton Heath	265	—	1	4	181	24	44	11	38	212	12	3	—	14	21
Clayton	285	—	—	—	115	67	86	17	72	113	—	—	—	8	8
Openshaw... ..	163	—	—	127	25	10	1	—	—	162	1	—	—	—	7
West Gorton	147	—	—	—	95	18	33	1	84	63	—	—	—	8	24
Rusholme and Fallowfield... ..	300	—	—	—	1	52	218	29	77	140	83	—	—	1	6
Moss Side... ..	287	1	3	—	14	131	81	57	—	106	120	60	1	16	42
Levenshulme	252	—	—	26	87	37	75	27	94	119	27	12	—	11	17
Gorton	119	—	—	—	88	31	—	—	104	15	—	—	—	—	—
Chorlton-cum-Hardy	111	—	2	—	32	10	33	34	86	22	—	—	3	9	17
Didsbury	184	—	—	19	20	88	29	28	100	42	—	35	7	5	8

EXTRACT FROM THE REPORT OF THE MARKETS COMMITTEE FOR THE YEAR
ENDING MARCH 31ST, 1923.

(a) AMOUNT OF UNWHOLESOME FOOD CONDEMNED DURING THE
YEARS ENDING 31ST MARCH, 1922 AND 1923.

Meat and Fish.

	1921-22	1922-23
	LBS.	LBS.
Beef	639,693	630,287
Mutton	46,187	18,948
Veal	12,276	13,371
Venison... ..	1,112	148
Pork	93,835	62,638
Imported Offals	17,034	19,551
	810,137	744,943
	= 361 $\frac{3}{4}$ tons	= 332 $\frac{1}{2}$ tons
Fish	408,268	238,136
Shellfish	29,582	61,399
	437,850	299,535
	= 195 $\frac{1}{2}$ tons	= 133 $\frac{3}{4}$ tons

Other Food Stuff.

	1921-22	1922-23
Game (Head)	1,006	78
Poultry (Head)	5,769	4,332
Rabbits (Head)	54,319	13,842
Fruit (lbs.)	68,270 = 30½ tons	123,897 = 55¼ tons
Vegetables (lbs.)	210,241 = 93¾ tons	184,408 = 82¼ tons
Miscellaneous :—		
Eggs (Number)	32,828	34,001
Condensed Milk (lbs.)	35,189	16,183
Sundry Provisions (lbs.)	27,316	15,097

With the exception of the following, which were seized while deposited or exposed for the purpose of sale, the above quantities were surrendered after being condemned by the Inspectors of the Department.

	1921-22	1922-23
	LBS.	LBS.
Meat	295	156½
Fish	39½	239½
Fruit	53½	139½
Condensed Milk	—	192
Syrup	—	10
	HEAD.	HEAD.
Rabbits... ..	73	29
Fowl	15	—

NOTE.—The term "surrendered" includes cases in which the Inspectors have discovered the diseased meat, etc., in the course of their duty, but in which, owing to salesman's acceptance of Inspector's decision, it has been deemed unnecessary to obtain Magistrate's order prior to destruction.

PARTICULARS RELATING TO THE OPERATIONS OF THE CLEANSING DEPARTMENT.

The Medical Officer of Health is indebted to Mr. Williamson, Superintendent of the Cleansing Department, for the following particulars relating to the operations of the Cleansing Department during the year ending 31st March, 1923.

Cleansing Department,
Town Hall, Manchester,
September 30th, 1923.

Dear Sir,

The administration of the Cleansing Department of the City of Manchester is under the supervision of a Superintendent, with a staff of about 50 officials and about 1,725 workmen.

The extent of the Department's operations may be gathered from the following general statistics :—

The gross expenditure of the Department during the year ended March 31st, 1923, was £414,343, and the gross income £101,795, the net cost being £312,548.

The wages of the Department for the year amounted to £276,875, including bonus.

For Departmental purposes the Cleansing of the City is divided into a Nightsoil Section and a Scavenging Section.

The work of the Nightsoil Section includes the emptying of old privies and pail closets and the collection and disposal of household refuse ; whilst the Scavenging Section deals principally with the cleansing of the streets and disposal of refuse collected therefrom.

Nightsoil Section.

There are within the City 160,431 dwelling-houses, 4,511 lock-up shops, and 4,118 workshops. From these premises during the past year there was collected and disposed of 193,716 tons of ashes, 5,502 tons of nightsoil and pail contents, 17,792 tons of warehouse and trade refuse, 4,513 tons of slaughter-house refuse, 3,418 tons of stable manure, and 2,149 tons of fish refuse.

Previous to 1872 the midden-privy system was in operation, but the Corporation then decided upon the introduction of what is known as the pail-closet system, the scarcity of water preventing the adoption of the water-carriage method. Since the water difficulty has been solved, the conversion of pail-closets into water-closets has been proceeded with, and is rapidly nearing completion. There are now only 217 privies and 1,300 pail-closets within the City.

In later years it was decided to replace the wooden ash-boxes by galvanized iron receptacles with lids, and there are now 165,165 of the latter ; the number of wooden ash-boxes being reduced to 1,440.

TABLE SHOWING NUMBERS OF PRIVIES, PAILS, ASH-BOXES, AND ASH-BINS FOR
PERIOD 1911-1923.

Year	No. of Privies (with Ashpits)	No. of Pails	No. of Wooden Ash-boxes	No. of Galvanized Iron Ash-bins with Lid
1911	5,218	15,624	56,494	74,494
1912	1,982	10,000	50,421	88,762
1913	292	3,850	41,645	101,239
1914	218	2,128	31,875	112,843
1915	157	1,710	24,677	121,191
1916*	236	1,671	16,653	142,107
1917	230	1,665	12,469	146,246
1918	230	1,633	11,230	147,616
1919	217	1,327	8,011	151,609
1920	217	1,326	4,827	153,962
1921	217	1,322	2,181	156,587
1922	217	1,310	1,681	160,347
1923	217	1,300	1,440	165,165

* District of Withington incorporated.

The removal of domestic refuse takes place once a week.

The fleet of barges for removal of refuse is now 11, and 2 additional are on the point of being purchased.

Five motor and 57 horse-sweeping machines were employed in the street in 1922, a total of 98,952 tons of sweepings, litter, etc., being collected as compared with 93,828 tons in 1921.

The receipts from mortar mills in 1922-1923 was £4,639, compared with £3,578 in the previous year.

General.

The total weight of material dealt with by the Nightsoil and Scavenging Sections of the Department during the year was 337,534 tons, being equal to over 1,000 tons per working day.

TABLE SHOWING THE DISPOSAL OF MATERIAL COLLECTED TWELVE MONTHS
ENDING MARCH, 1923.

	Tons	Tons
Town's Refuse to Department's Estates	9,958	
„ „ Farmers	163	
„ „ (Pail contents) to Farmers	560	
	—————	10,681
Stable Manure to Department's Estates	2,533	
„ „ Farmers	526	
	—————	3,059
Clinkers to Department's Estates	14,535	
„ „ Contractors	2,131	
„ „ Allotments	106	
„ „ and Rubbish to Tip	75,419	
	—————	92,191
Sweepings to Estates	8,791	
„ „ Farmers	5,012	
„ „ (rough) to Tips	47,736	
„ „ to Allotments	2,028	
	—————	63,567
Rubbish (Ash-box Refuse) to Estates		41,894
Market Garbage to Farmers' Carts		2,329
Concentrated Manure		634
Sand on Streets		3,133
Stone Clippings on Wood Pavements		770
Mortar		8,203
Old Irons and Tins, Glass, Soap, Grease, and Waste Paper		1,141
Burning and Drainage		109,932
Total		<u>337,534</u>

The amount of refuse taken to the Carrington and Chat Moss Estates since they were purchased by the Corporation is as follows :—

Chat Moss Estate	.. ..	1,281,240 tons in 25 years.
Carrington	„	1,030,719 „ 35 „

The number of farm tenants on these estates is 54, occupying 51 farmsteads and 3 extensive nurseries.

The Corporation erected the farmsteads, together with an adequate supply of town's water. The market value of the estates has considerably increased since their purchase, chiefly through cultivation and owing to the proximity of the Manchester Ship Canal.

I remain,

Yours faithfully,

R. WILLIAMSON,

Superintendent.

Dr. R. Veitch Clark,
Medical Officer of Health,
Manchester.

INDEX.

	PAGE		PAGE
Abergele Sanatorium, Report of Medical Superintendent.....	111-115	Death-rates	1, 2, 3, 21, 24
Acts, Notices under	174	„ gains and losses ...	5
Antitoxin	37	„ male and female ...	2
Area of City and districts in acres	1, 21	„ in Age Groups	1b
		„ in the homes of the people, in work- houses and in hospitals	2, 3
Babies' Hospital.....	145-147	„ in Districts	21
Bacteriological Examinations.. 37, 42, 78, 119		„ specified causes..	19, 20, 24
Baguley Sanatorium—Report of Medical Superintendent.....	99-110	Density of population.....	1, 21
Bakehouses	176, 177, 178	Diarrhœa....	48 and 49, 145 (Table 5)
Births, ...	1, 21, 22	Diphtheria	34-37
„ Act, Notification of.....	144	Dysentery	50
„ Illegitimate	22		
Birth-rates	1, 21	Encephalitis Lethargica	44
		Enteric Fever	38-41
Canal Boats Act	172	„ bacteriological ex- aminations	42
Cerebro-Spinal Fever.....	43	Erysipelas, incidence of	26, 118
Chickenpox	27	Estimated population	1, 21
Childhood, deaths at.....	18	Excess of births over deaths....	1
Child Welfare Centres.....	145, 157		
Cleansing Department, work of 187-190		Factory and Workshop Act, 1901 :— Summary of work by In- spectors	169
Closets, Number of... 181, 182, 187-188		Farms, No. of	125
Compulsory notifications	26	Fertilizers and Feeding Stuffs Act	171
Consumption	76-115	Fever, Scarlet.....	28-34
Cream and Milk Regulations....	173	„ Enteric	38-41
Creche Ward	147-148	„ isolation of cases	116-124
		„ Puerperal.....	26, 118, 152
Dairies, Cowsheds, and Milk- shops Regulations, work under.....	125-134	„ Cerebro-Spinal	43
Deaths, various causes	12-18	„ Trench	51
„ in public institutions ..	1, 2, 3	Fish, etc., unwholesome	185-186
„ from various causes for 6 years	4	Food Poisoning	165-167
„ from infectious diseases for 11 years	26	Food and Drugs and Margarine Acts	171
„ males	2, 16		
„ females	2, 17	Gains and losses in deaths	5
„ in infancy.. 1, 6, 7, 18, 22, 23		German Measles and Measles... 44-46, 148-149	
„ in childhood	18		
„ under 1 year of age per 1,000 births, 1, 6, 7, 18, 23, 25		Health Visitors	143-151
„ uncertified	25	Infantile mortality, 1, 6, 7, 18, 23, 25	

INDEX—*continued.*

	PAGE		PAGE
Health Visitors— <i>continued</i>		Milkshops, Inspection of	129
Cleansing of verminous children	149	Model Milk Clauses—Work under	125-134
Jewish Health Visitors	150	Monsall Fever Hospital—	
Notifications of Births Act..	144	„ Report of Medical Superintendent	116-124
Homes of the people, death-rates in	3	„ Bacteriological examinations	119
Hospital accommodation, 99, 111, 116, 145		Mortality, infantile, 1, 6, 7, 18, 23, 25	
Hospitals, death-rate	1, 2, 3	„ comparison in divisions, 21, 24	
Houses let in lodgings	168	Neglected children	149
Housing	1, 182-184	Notifications of infectious diseases	26
Ice Cream	128, 129	Notifications of Births Act	144
Illegitimacy and mortality	22	Offensive trades	172
Infant life :—		Ophthalmia Neonatorum	161-164
Work of the Health Visitors, 143-151		Outworkers	170
Infantile mortality..1, 6, 7, 18, 23, 25		Pail-closets	181, 188
Infectious diseases	26	Percentage mortality in public institutions	1, 2, 3
Influenza	142, 143	Persons to an acre	1, 21
Inquests	25	Phthisis	76-115
Insanitary dwellings	182-184	Pneumonia	135-141, 149
Inspection of milkshops	129	Poliomyelitis, Acute Anterior..	43
Inspectors, Special Summary of Work	166, 167	Poor Law Relief	8-10
Institution death-rates	1, 2, 3	Population, estimates of	1, 21
Jewish Health Visitors	150	„ natural increase of	1, 21
Malaria	50	„ density of	1, 21
Markets Department, work of, 185-186		Pre-Maternity Centres	158b
Marriage rate	1, 19	Prosecutions for offences	171, 175
Massage at Centres	158b, 159-160	Public institutions, deaths in	1, 2, 3
Maternity and Child Welfare..152-159		Puerperal Fever	26, 152
Measles and German Measles 44-46, 148-149		Rats Order	71-75
Meat, etc., unwholesome	185-186	Recorded death-rates	1, 19-21
Metecorological data	1a, 49	Return cases of Scarlet fever... 32, 116	
Middens	181, 188	Sanitary Department, work of, 167-186	
Midwives Act, 1902 and 1918, Report of Executive Officer, 152, 157		Scarlet Fever	28-34
Milk supply	125-134	„ Milk-borne epidemic	32-34
Milk at reduced cost	158a	„ return and recovery cases	32-116
Milk and Cream Regulations	173	Shops Acts and Orders	168, 173-174
Milk and Tuberculosis	125-134	Smallpox	27
Milk (Mothers and Children) Order, 1918	149		

INDEX—*continued.*

	PAGE		PAGE
Smoke nuisances	172	Uncertified Deaths.....	25
Statistics, Vital	1-5	Unhealthy dwellings	172
Stillbirths	155		
Summer Diarrhœa.....	48-49, 145 (Table 5)	Venereal Diseases.....	52-70
		Verminous cleansing	149
Tables, annual	12-25	Vital Statistics	1-5
Trench Fever	51		
Tuberculosis of the Lungs	76-115	Water Closets	181, 182
Bacteriological examinations.	42, 78	Whooping Cough	47, 48
Cases treated in—		Work of Sanitary Department,	167-186
(a) Abergele Sanatorium	111-115	Work of Cleansing Department,	187-190
(b) Baguley Sanatorium ..	81, 99-110	Work of Special Inspectors ..	166-167
(c) Delamere Sanatorium .	79, 80	Workhouse death-rate.....	3
Tuberculosis Medical Officer's		Working classes, housing of...182-184	
Report	85-99	Workshops.....	168, 169, 178
Tuberculosis and milk	125-134		
,, and bacteriological work	42, 78	Zymotic diseases	26
Typhoid Fever — see Enteric			
Fever	38-41		

LIST OF TABLES.

	PAGE
Meteorology	2a
Death-rates in Age Groups (Males and Females)	2b
Death-rates in the Homes of the People, in Workhouses, and in Hospitals	2, 3
Rates of Mortality (Male and Female)	2
Chief Causes of Death	4
Gains and Losses	5
Infantile Mortality	6, 7
Poor Law Relief	8
Deaths, Death-rates	12-23
Infectious Diseases and Deaths	26-27
Scarlet Fever	28-30
Diphtheria	34-37
Enteric Fever	38-41
Bacteriological Examinations	42
Measles	44-45
Whooping Cough	47-48
Diarrhœa	48-49
Venereal Diseases	54-70
Tuberculosis	76-85, 91-92
Baguley Sanatorium	99-100
Abergele Sanatorium	111-112
Monsall Hospital	119-120
Tuberculous Milk	129, 130, 131
Pneumonia	136-140
Influenza	14
Work of Health Visitors	144a-150
Work of Jewish Health Visitors	15
Midwives Department	153-155
Provision of Milk	158
Work of Child Welfare Centres	158b, 159, 160
Ophthalmia Neonatorum	162-164
Work of Sanitary Department	16
Food and Drugs, etc., Acts	17
Work done <i>re</i> Dairies, Milkshops, Cowsheds Orders, and Ice-Cream Factory and Workshop Act	17
Privies, Pails, etc.	181, 182
Housing	182-183